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"FRUIT WORLD OF AUSTRALASIA."

Representing the deciduous, citrus and dried fruits industry of the Southern Hemisphere.

Published the First of each Month.

Editorial and Management Notices.

Articles and Photographs.—The Editor will always be very pleased to receive articles and photographs for publication. Articles on spraying, pruning, drainage, marketing, and other cultural matters, and reports of meetings, are welcomed. Please write on one side of paper only; include name and address (not necessarily for publication). Press matter sent in an open envelope, marked "Printer's M.S.S.," postage rate: 2 ozs., 1½d. Photographs, if sent in an open-ended package, marked "Photos. only," will travel at 2 ozs., 1½d. A short description of the photos. should be written on the back.

Subscriptions.

The annual subscription, post free within Australia and New Zealand, is 8/6. All other places, 10/6, post free. New subscriptions can commence at any date. Subscribers should notify us immediately of any change of address.

Renewal Subscriptions are due during the last month of the term covered by the previous payment, and unless notified to the contrary, the fact that the subscriber continues to accept delivery of the journal, is taken as proof that continuation of the subscription is desired, and we will continue to send regularly until notified in writing or copies are returned through the post.

Advertisements.

"The Fruit World of Australasia" is an advertising medium of proved value. Advertising rates may be had on application to our Head Office, or to agents in the various States, as set out below.

Changes of copy for advertisements must be in our hands on or before the 17th of the month prior to publication.

Readers are asked to make their purchases from our advertisers, who cover all lines of interest to orchardists, at the same time mentioning this journal. By so doing, the grower, the advertiser, and this paper will benefit.

Every care is taken to publish advertisements from reliable houses only, and to see that advertisements of an undesirable nature are not published. The management reserve the right to refuse to publish any announcements that they may regard as undesirable, either from the point of view of the goods offered or in the wording of the advertisement, notwithstanding the fact that a contract may have been entered into for the use of a certain space.

"The Fruit World" offices (where copies and full particulars are obtainable) are as follows:—

Victoria (Head Office): 9 Queen Street, Melbourne. **New South Wales:** Carruthers, Farrum & Co., 77 King Street, Sydney. **South Australia:** W. F. McConnell, Grenfell Buildings, Grenfell Street, Adelaide. **Tasmania:** Saunders & Co., Murray Street, Hobart. **Western Australia:** D. L. Hetherington, Colonial Mutual Buildings, St. George's Terrace, Perth. **Queensland:** Gordon & Gotch Ltd., Queen Street, Brisbane. **New Zealand:** Gordon & Gotch Ltd., Wellington, Dunedin and Auckland. **Great Britain:** Harvey H. Mason, 1 Mitre Court, Fleet Street, London, E.C., England.

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E. H. WRAGG, Secretary and Advertising Manager.

Tasmanian Director: HON. L. M. SHOOBRIDGE, M.L.C.

News of the Month.

PRUNE GROWERS' ASSOCIATION.

AN IMPORTANT MOVE has been made by prune growers in New South Wales in forming an association to supervise marketing of their products. It is hoped that prune growers of Victoria and South Australia and the other States will affiliate in order to create an Australian organisation. There is urgent necessity for such an Association, as prunes have been planted heavily throughout Australia during the last few years. Each State has so far acted independently, and the time is certainly fully due for an adequate survey to be made of the whole position.

Figures recently compiled show that 11,000 acres have been planted to prunes in Australia. Allowing five tons of prunes to the acre, this will mean that there will be a crop of 55,000 tons of prunes in three years time. Last year, the total production of prunes in Australia was 1,200 tons.

Two outstanding needs are that the production shall be standardised and effectively advertised.

THE STARLING PEST.

REPORTS FROM VARIOUS CENTRES indicate that the Starling is increasing so rapidly as to become a menace to orchardists. "The Fruit World" has repeatedly sounded a note of warning on this matter, and we repeat with emphasis that united action to destroy Starlings must be undertaken. Our correspondent from Murrumbidgee Irrigation Areas tells of the millions of Starlings that are attacking the fruit crops there. This is in line with similar experiences elsewhere.

The matter warrants the attention of the Departments of Agriculture, and these, working in conjunction with growers and others, can tackle the problem.

Our previous suggestions included the encouragement of gun clubs for shooting Starlings; wholesale netting of the pests by night at their camping places. There are other means of destroying the Starlings, especially at the mating seasons, and methods would have to be adapted to suit local conditions. Certain it is, however, that the problem must be faced without further delay.

BIG FRUIT SHOW AT MANCHESTER

A HUGE EMPIRE FRUIT SHOW was held last October at the Crystal Palace, London. Competitive entries were received from the far-flung British Dominions. Australia secured important prices in citrus thus giving Australian fruits a very important advertisement.

As arrangements have to be made well ahead, it is not too early, even now, to begin to make preparations to provide entries for the important Manchester Show this year. By planning ahead and selecting the right varieties, Australia could put up a very creditable exhibit of apples. As this is our main export line in fresh fruit the effort would be well worth-while. It goes without saying that citrus growers will again compete. This is a matter which should be taken up by the Fruitgrowers' Associations in the several States. The Departments of Agriculture, we are sure, would readily render any assistance in their power.

Undoubtedly arrangements will be made for adequate displays of our canned and dried fruits.

AUSTRALIAN DRIED FRUITS.

Will Preference be Increased?

THE PRESIDENT of the British Board of Trade (Sir Philip Lloyd Graeme), replying to a question in the House of Commons regarding representations from the Commonwealth Government on the subject of the preferential treatment of Australian dried and canned fruits, said that the Imperial Government had received a communication on the subject some time ago, which stated that the industry was capable of great development. He added that Australian preserved fruits liable to duty already received a preference of one-sixth, and the Imperial Government, after careful consideration, had come to the conclusion that it was not possible to increase the amount of preference as suggested by the Commonwealth

. . . .

The delegation consisting of Messrs. Chaffey, McDougall and Meares will certainly attempt to press on the British Cabinet the necessity for increasing the preference on Australian dried and canned fruits.

RECIPROCAL TRADE WITH CANADA.

Why Does Australia Prohibit Canadian Apples?

THE SUCCESSFUL EXPORT of Australian Oranges to Canada raises an interesting point. Australia at present prohibits fruit from our sister Dominion, Canada, from entering the Commonwealth. Yet we seek Canada as a market for our fruit.

Are we consistent? If the embargo were removed, Canada might send 70,000 to 100,000 bushels of Apples to be consumed amongst Australia's 5,000,000 population, during the months of December and January when local Apples are scarce, inferior and dear.

Why does not Australia develop the Canadian market for Apples, where there is a population double that of Australia. Then, just at the time when our Apples are at their best, the local cold stored Apples in Canada would be inferior to our fresh fruit; in other words, if Canada send us 100,000 bushels of Apples to Australia, why does not Australia send 200,000 bushels of Apples to Canada?

Then again, with Citrus, many capable observers state that Australia has as important a market in Canada as in England for Citrus. We have now commenced to develop the former market. Yet Canada asks why should she allow our fruit into Canada when we refuse her fruit entry into Australia.

AUSTRALIAN CITRUS INDUSTRY.

Rapid Expansion.

Tour of Victorian Areas.

Members of the Executive Committee of the Victorian Central Citrus Association, Messrs. G. Mussen and B. S. B. Cook, accompanied by Mr. M. P. Canny, Outdoor Superintendent of the Victorian Railways, and S. Cock, Victorian Government Citriculturist, made an extensive tour of the Victorian and border citrus areas. A representative of the "Fruit World" was with the party for the major portion of the tour.

Meetings of growers were held in the various centres and much enthusiasm was displayed. The necessity for adequately organising the growers of citrus fruits was demonstrated. Preliminary preparations were made for increasing the export of citrus fruits, also for packing sheds convenient to railway stations.

Indignation was expressed at the unjustifiable report written by the Agent-General, Mr. John McWhae, reflecting on the honesty of citrus growers, and published without examination by the Victorian Government. The Victorian Government has been pressed to conduct an investigation into the matter and secure an apology from Mr. McWhae.

A further report of the tour will be published in our subsequent issues.

BUD SELECTION.

Government Assistance Suggested.

In reply to questions from a correspondent, Mr. H. N. Wicks, Nurseryman and Fruitgrower, of Balhannah, South Australia, writes:—Leading nurserymen, have for a number of years been endeavoring to propagate only from proved fruiting trees, true to type, and in my own case a large amount of time and money is spent during the budding season collecting buds from these parent trees. The matter of setting apart, after collecting the best parent trees for propagation of all our leading commercial lines should be taken up by the Governments, as it is a costly process, and it is not possible for this reason, for the nurserymen to go as far in this matter as they wish. **Bud selection is a matter which should be taken up in earnest, as the future of our fruit industry depends on it to no small extent.**

Fruitgrowers and nurserymen should unite in approaching the Governments to take this matter up immediately, to collect and make available the pedigreed trees for propagating the stock which will eventually become established as the commercial orchards of this country. Too much time has already been wasted.

With regard to planting the most suitable varieties, Mr. Wicks continues:—Any nurseryman with a fairly large turnover becomes the possessor of considerable knowledge as to the best varieties for different localities and districts, and he is only too pleased to answer enquiries in this direction, and is always prepared to go into this matter very fully for intending planters. During the past few years the majority of nurserymen have been deleting from their lists the unprofitable lines and cataloguing only the leading commercial varieties. Advice on this point is always freely given, as commercial varieties in one district might be useless in another.

TWO NEW FRUITS.

Produced in Florida by a Chinese and a Negro—Orange and Mango.

Two Florida horticulturists, one Chinese and the other a negro, have developed new varieties of fruits which fill gaps in the fruit calendar in this section.

Lue Gim Gong, the Chinese, whose estate near Deland is one of the show places of Central Florida, gained international prominence some years ago when he disclosed the development of a new variety of Orange possessing unusual qualities, from the viewpoint of the citrus fruit grower.

The Orange, which was named the "Lue Gim Gong," in honour of its developer, now is produced throughout the State. In March, 1921, Lue Gim Gong announced the production of, and exhibited, a Grape fruit remarkable for the penetrating power of its agreeable aroma. His experiments with citrus fruits are continuing.

Hezekiah Brooks, a negro gardener and fruitgrower of Miami, recently announced the successful conclusion of his attempts to produce a new variety of Mango. The result is destined to fill a gap in the fruit calendar of this section because, he claims the fruit ripens between November and January, a period during which the Mango is not to be found on this market.

The Brooks Mango is similar to the Mulgoba in appearance and texture, but is declared to be superior to that variety in flavour.—"American Nurseryman."

THE ELECTIONS.

Hughes Administration Defeated.

Coalition Government Desirable.

Now that the smoke of the election battle has cleared, the state of the parties in the new Commonwealth Parliament is revealed thus:—

Labor	29
Nationalist	27
Country and Liberal	19

One outstanding fact is the heavy defeat of the Hughes Cabinet with its socialistic Government enterprises and grievous errors in administration.

Five Ministers have lost their seats; and possibly an additional Minister will go, when the Senate second preferences are counted.

Regret is expressed in many quarters, especially in fruitgrowing circles, at the defeat of the Minister of Customs, Mr. Rodgers, who was credited with endeavoring to serve primary producers. The seat has gone to Labor, because of the adverse second preferences of the Country Party candidate.

Another obvious feature of the election is that the people do not desire a Labor Government. Seeing the trend of affairs as revealed by the election, moderates within the Labor movement are endeavoring to purge it of its red revolutionary elements. The electors would not trust a Government which is ruled by an executive outside Parliament, and whose avowed policy is the socialization of industry, and control of the means of production, distribution and exchange.

Weighing these major factors, viz., the Hughes defeat and the vote against socialism, what is the interpretation of the people's will in regard to governing the country?

It is the union of the Nationalist, Country Party and Liberal forces to form a Government with a progressive programme to assist in the development of the vast resources of this Continent.

With all due respect to Mr. Hughes and his undoubted genius, a new Prime Minister must be found. As he showed himself incapable of shedding his wartime authority—which amounted to a Dictatorship—the people have by their votes taken his authority from him.

At the time of writing (December 29th) the positions of the Senate candidates are not clear.

Summed up, the electors of Australia have made their wishes clearly known and the opportunity is present for the construction of a stable Government on non-socialistic lines, which should have a useful career in developing the Commonwealth.

R. E. Boardman,
9 Queen-st., Melbourne.

Messrs. Bailey, Baldwin Pty. Ltd., 552 Flinders-street, Melbourne, have been appointed agents for Victoria and Tasmania for Messrs. Swann & Co., Fruit Importers, London, Eng.

BROWN HEART IN APPLES.

American Plant Pathologist States Foul Air the Cause.

Ventilation Required, not Pre-cooling.

I THINK THAT BROWN HEART is largely due to the accumulation of gases that have been given off by the Apples, but also has been favoured by the high temperature which must have existed to produce the gases in such large quantities. It will probably also be favoured by any over-ripeness of the fruit that might have occurred. We have a very similar disease that we called Internal Breakdown, that we think may be entirely due to the fruit being overripe at picking time, but it is also brought upon by storage at high temperatures. Either that or without ventilation. The Brown Heart is like Apple Scald in being favoured by tight storage and high temperature, yet I believe that the diseases should be regarded as entirely distinct.

The accumulation of carbon dioxide has apparently much to do with the production of Brown Heart, while it really tends to prevent the development of scald. Brown Heart is confined largely to the internal tissues, while scald is primarily a disease of the skin. Scald can be completely prevented by the use of oiled wrappers, but I feel sure that you would find the oiled wrapper of no value in the control of Brown Heart. The conditions in the storage chamber of the boats are apparently very favourable for the accumulation of carbon dioxide. This gas is heavier than air and would naturally settle to the bottom and would find no outlet from that point.

In the American cold storage plants there are always openings at the floor level, and carbon dioxide probably never accumulates to the extent of more than 2 or 3 per cent. in any Apple storage room. **In my opinion the removal of the foul air from the boat chambers would largely prevent Brown Heart and entirely pervent it if a proper temperature should be maintained.** I should think that since there are no openings in the bottom of the storage chamber that some sort of suction from the bottom of the space would be particularly efficient in removing the carbon dioxide, but the stirring up with fans would also help to remove it and would be of particular value in securing more uniform cooling.

If the shipping company has sufficient refrigeration and will thoroughly renew the air by ventilation during the first part of the trip, it would probably be able to prevent the trouble without pre-cooling.

As to opening up the chamber after it has once been closed it is very likely a dangerous thing to do under present shipping conditions, but it ought to be entirely possible if the ship has sufficient refrigeration to bring the fresh Apples down to proper storage temperature within a very few days, or if the new cargo is at a fairly cool temperature when placed in the chamber. There might be cases where it would be necessary to give some care to the question of humidity, but I would not expect that this would usually be difficult to handle.

If the adding of additional fruit is likely to result under present conditions in the raising of the storage temperature for a considerable time afterwards, it undoubtedly would be quite detrimental to the fruit that had been cooled. I do not believe that the shock from warming up cold fruit is as great as has sometimes been suggested, but after this long period of storage the Apple is necessarily older and weaker and it certainly could not stand any long period at a high temperature after arrival at destination. A great good, therefore, could be accomplished by keeping the fruit at least at a fairly cool temperature after it has been taken from the boat until it has reached the consumer.

I should think it very important that the ship should carry self-registering thermometers and also that part of these be of the resistance type, so that the temperature of the fruit of itself could be secured in the middle of the stacks and not merely air temperature taken. A temperature of 32-34 degrees should be very satisfactory, and a temperature of 30 degrees just as good if there are no air pockets that are liable to fall below this.

In our October issue we published an article from Professor D. McAlpine demonstrating that the trouble known as "Brown Heart" is caused in the ships' cold storage chambers.

With a uniform temperature of 30-32 deg. Fahr., and with sufficient ventilation, fruit will arrive in England in the same condition in which it left Australia.

In this article Mr. C. Brooks, U.S.A. Plant Pathologist, emphasises the fact that Brown Heart is largely due to the accumulation of gases and high temperatures

The removal of foul air from the chambers would largely prevent Brown Heart and entirely prevent it if a proper temperature were maintained.

The trouble could be overcome by thoroughly renewing the air by ventilation during the first part of the ship's journey.

Pre-cooling is not necessary.

A similar disease exists in the United States, and is known as Internal Breakdown.

ENGLISH SCIENTISTS COMING.

Three English scientists from the Cambridge School of Botany are visiting Australia early in the New Year to investigate Australian fruitgrowing and shipping conditions with a view to preventing the recurrence of Brown Heart. It is understood they will inspect all the conditions connected with harvesting, transport, loading, ships' cold storage, and will travel back to England on a ship conveying fruit.

Australian State Governments are contributing to the expense of the delegation.

SUGAR AND FRUIT.

A letter is to hand from Mr. G. H. Pritchard, secretary of the Australian Sugar Producers' Association. Pressure on space prevents publication of the letter and its necessary reply. The writer deals with the threadbare question as to the quantity of sugar in each tin of canned fruits, and overlooks the fact that jam is 60 per cent. sugar, and that the trade in the latter is very much larger than the canned fruit trade.

Until sugar is obtainable at a reasonable price canned fruit and jam—especially the latter—must remain in the "luxury" class.

Apart from the factory aspect the sale of fruit to housewives for jam making has been heavily reduced.

Personal

Mr. C. J. DeGaris, who recently returned from America after successfully accomplishing his financial mission regarding the Kendenup enterprise, has drawn some interesting comparisons between Australia and United States of America. Summed up, he states the quality of Australian fruits is quite equal to that of the American, but in the art of packing, general "get-up" and advertising, Australia is far behind.

Mr. Chas. Griffeth, managing director of Two Bays Nurseries and Orchards Co. Pty. Ltd., Melbourne, has returned to Australia after an interesting visit to U.S.A. Mr. Griffeth is well, having thoroughly enjoyed his trip.

Congratulations to Mr. Hurst Gray (son of Mr. and Mrs. W. G. Gray, Hurstbridge, Vic.), on his marriage to Miss Doris Duncan, of East St. Kilda.

Export of Fruit.

Deterioration Insurance Opposed.

A Conference between the Executive of the Victorian Fruitgrowers' Central Association and delegates from the Fruit Exporters' Handling Committee, was held on December 12th. The latter included Messrs. S. J. Perry, J. B. Mills, A. S. Harrison (International Fruit and Mercantile Co.), A. G. Lester (Dennys, Lascelles), F. R. Mellor and J. Oldham.

Mr. J. W. Bailey (Victorian Fruitgrowers' Central Assn.) presided.

The Chairman urged the necesity for reduction of freights. He thought growers, rather than take the risk of shipping fruit to be sold at low prices in England, would sooner lose the fruit in Australia than ship same abroad to lose the money there. Faulty stowage was the cause of last season's bad carriage of fruit, and it would be better not to ship by certain boats.

Mr. J. Oldham (Coastal Farmers' Society) stated that lack of ventilation caused harm to fruit shipments last year. Insurance against deterioration had tempted some growers to ship fruit of inferior quality. He suggested making a levy on exportable apples and pears, and to get a guarantee from the Government to supplement the insurance paid by growers. He had no definite plan, but would like to hear the matter discussed.

Mr. J. B. Mills (J. B. Mills and Co.) said it was not in the interests of the trade to encourage insurance against deterioration. He quoted from extracts of the minutes of a recent meeting of the fruit trade in London. Apart from the undesirability of the insurance against deterioration, the cost would be prohibitive, same being from £10 to £15 per cent., which in itself would stop such insurance.

Mr. S. J. Perry, Chairman of the Fruit Exporters' Handling Committee, supporting the deletion of deterioration clause, said that some growers had sent not only poor fruit, but had also included varieties which were unsuitable for carriage overseas. These factors resulted in the criticism on the outturn of last season's fruit.

Mr. A. S. Harrison (International Fruit and Mercantile Co.) quoted figures proving that a deterioration insurance would be too expensive to be availed of in the coming season.

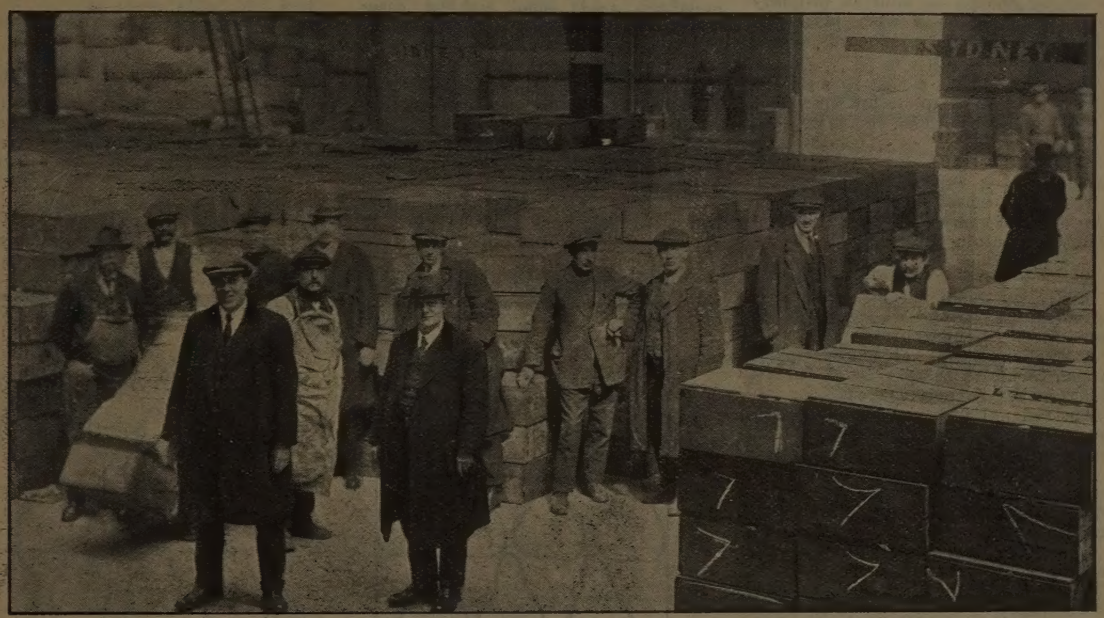
Mr. F. R. Mellor said that under their bills of lading the shipping companies exempted themselves from claims as much as possible, and under the deterioration insurance clause, there might be a tendency for them, knowing that the growers were covered by insurance, not to take extra pains with the fruit. The deterioration clause should be made unnecessary by the good conditions in which the fruit was carried to London.

Mr. A. G. Lester (Dennys Lascelles) said his firm would not insure under the "deterioration" clause; the Citrus fruit sent from Australia was in excellent condition, despite the adverse report of the Agent-General, who, in the speaker's opinion, "talked too much."

Mr. R. Mair (Tyabb) supported the elimination of the clause, and moved "That this meeting endorses the resolution of the Fruit Exporters' Handling Committee to the effect that the system of insurance against deterioration is injurious to the best interest of the fruit industry."

Mr. A. F. Thiele seconded the motion, which was carried unanimously.

Reduction of Freight. — Several speakers urged the necessity for freight on export fruit to be reduced. On the motion of Messrs. Lang and Mair, it was decided "That this meeting considers that unless freight is reduced to not over 4/- per bushel case, export of fruit from Australia will receive a serious setback inasmuch as growers and exporters will largely curtail their shipments." The motion was carried unanimously.



Australian apples in shed at Docks, London, after being discharged from steamer

FREIGHT RATES FIXED.
Though Growers and Exporters are Protesting.

The rate of freight on export fruit from Australia to the United Kingdom has been decided as follows:—

Apples.—1 bushel case, 5/-; ¾ bushel, 4/3; ½ bushel, 3/-.

Pears.—1 bushel, 5/-; ½ bushel, 3/-; 1 tray, 2/-.

Oranges.—1½ bushel case, 7/-; 1⅛ bushel, 6/3; 1 bushel, 5/-.

Urgent representations are being made to have a further reduction made, as the above freights are crippling.

Standardised Packing of Fruit

Pears and Peaches.

Cases, Packing Paper, Branding, &c.

By Basil Krone, Packing Instructor, Department of Agriculture, Victoria.

(*Continued from page 429 of our December issue.*)

Cases.

TOO MUCH CANNOT BE SAID about the varying thicknesses in which some of our case timber is cut. Usually cases are a great deal too thin and flimsy; the side laths have in many instances spaces between them much too wide, and, if cut at all thin, these warp and the fruit suffers. Many complaints come from overseas about the flimsy character of our hardwood cases. The side laths should not be less than ⅜ inch in thickness, and ⅛ inch space between each lath is ample for apple cases. The lids and bottoms should not be less than ¼ inch in thickness. A well cut case should be strong enough to hold an ordinary person standing on it when placed on its side empty, and the boards should not bulge in.

Case ends should be cut ¾ x 14¼ x a little over 8⅔ to allow for shrinkage.

Side laths should be cut ⅜ x 4 11/16 x 19½.

Lids and bottoms (in one piece, if possible), ¼ x 8⅔ x 19½.

The inside measurmeant of this case when made up will be 18 x 8⅔ x 14¼, and contain 2,223 cubic inches.

Fruit Case Dimensions.

Australian dump bushel, inside measurement, 18 x 8⅔ x 14¼ = 2.223 cubic inches (export trade).

Australian dump half-bushel, inside measurement, 18 x 8⅔ x 7⅛ = 1,111½ cubic inches (export trade).

Australian half-bushel, grape, inside measurement, 18 x 11¾ x 5¼ = 1,110 cubic inches (export trade).

Australian flat bushel, inside measurement, clear of division, 26 x 6 x 14¼ = 2,223 cubic inches (Inter-State trade).

Australian flat half-bushel, inside measurement, clear of division, 26 x 6 x 7⅛ = 1,111½ cubic inches (Inter-State trade).

Australian orange export, inside measurement, clear of division, 24¾ x 12 x 12 = 3,564 cubic inches (export trade).

Australian pear trays, inside measurement, 18 x 3¼ and 14¼ = 833⅝ cubic inches (export trade).

Australian pear trays, 18 x 2⅞ x 14¼ = 737 7/16 cubic inches (export trade).

Tissue Paper.

All fruit for export should be wrapped in tissue paper. This acts as a cushion, and holds the fruit nice and snug, absorbs surplus moisture, prevents disease and decay spreading from one fruit to another, and, in addition, makes the pack more attractive.

Some reams of tissue papers of varying sizes have been counted, and average as follows (this will give the grower an idea of how many apples or cases a ream will pack):—

Size.	Paper per Ream.	Depth of Bundle or Ream.	—
8 x 8	500 sheets	¾ of an inch	Aprox. 250 sheets of
9 x 9	2,800 „	4 inches	10 x 10 tissue per
10 x 10	3,000 „	4½ „	lb. and 370 of 8 x 8.

Nails.

Generally, 1¼-in. 14 or 15 gauge nails are used when making cases. Sometimes 1½-in. nails are used, but the 1¼-in. 15-gauge will be found the most economical.

For 1,000 dump cases, approximately 1 cwt of 1¼-in. 15-gauge nails will be required.

For 950 flat bushel cases, approximately 1 cwt. of 1¼-in. 15-gauge nails will be required.

For 1,400 56-lb. dried fruit boxes, approximately 1 cwt. of 1¼-in. 15-gauge nails will be required.

PACKING PEARS FOR EXPORT IN HALF-BUSHEL DUMPS.

THE DIAGRAMS (Figs. 14 and 14a) will show how pears should be packed on trays according to their size. A layer of wood wool is placed in each tray before packing, and a layer on top of the fruit. The three trays are then stacked together, the bottom of one tray forming the lid for the tray beneath. The top tray has the usual lids nailed on. The package is then cleated or hoop-ironed together to form a dump case.

Picking and Handling Peaches.

When picking peaches that have to be cool-stored or sent overseas, the fruit should be fully developed, but very hard, and showing some color.

Instead of picking into bags or buckets in the usual way, it is suggested that they be picked on to convenient sized trays which have been padded with bags or sacking. The trays can then be placed side by side on the bench in the packing shed, and the peaches packed direct into the cases;

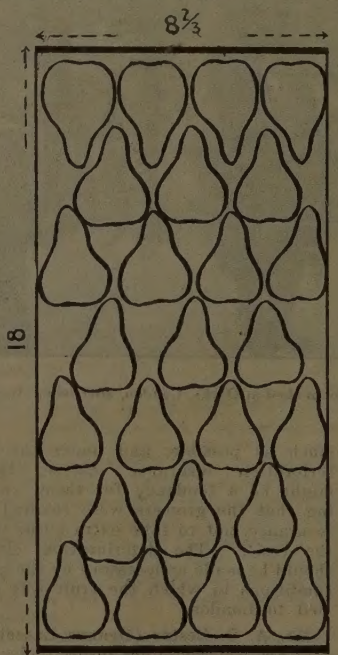


FIG. 14

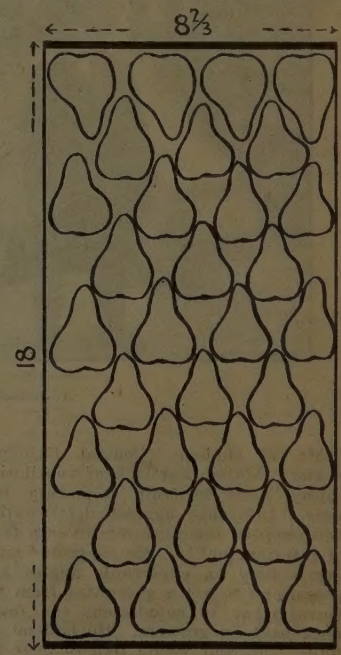


FIG. 14A

Pears Packed in Trays

this will save much tipping out and unnecessary handling of the fruit. The palm of the hand should hold the peach when picking; the fingers must not press the fruit in any way.

Should any grower wish to forward peaches in the half-dump cases for cool storage, as has been done during last season, the following table will be found useful in packing. With peaches for export I would recommend that two sheets of tissue paper be placed round each peach.

On account of the popularity of the half-dump case this season with many growers who exported pears in them instead of trays, a separate chart has been drawn up to guide the packer in getting the fruit up to the right height.

As the half-dump is exactly half the depth of the bushel dump, one would naturally think, if the latter case contained a certain number of fruits, the half-dump would contain half that number, but this is not so. Therefore, a separate Ready Reckoner has been worked out for those using the half-dump.

Pears are packed on the diagonal in the same way as apples, except that the stalks should all face one direction; the last pears in the layer, however, should be faced in the opposite direction. Fig. 15 shows this in the 3—2 pack, and Fig. 16 in the 2—2 pack.

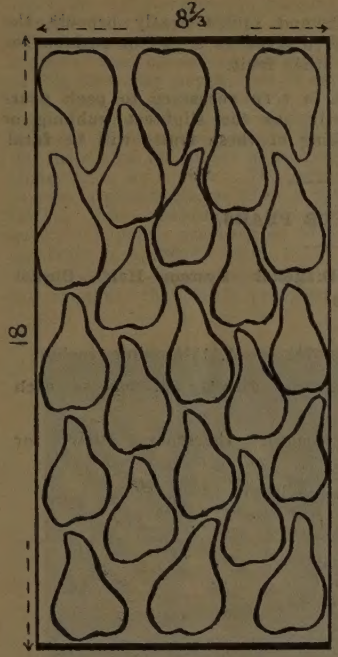


FIG. 15

Pears Packed on the 3—2 System.

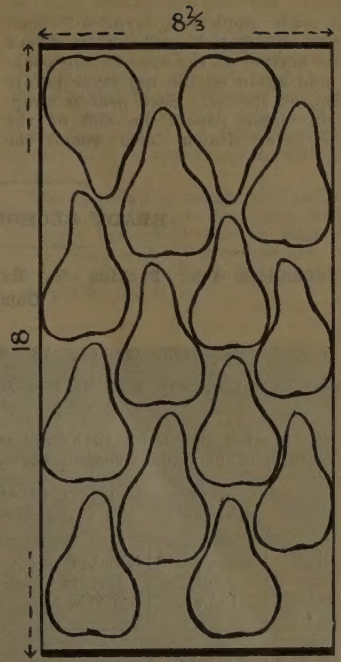
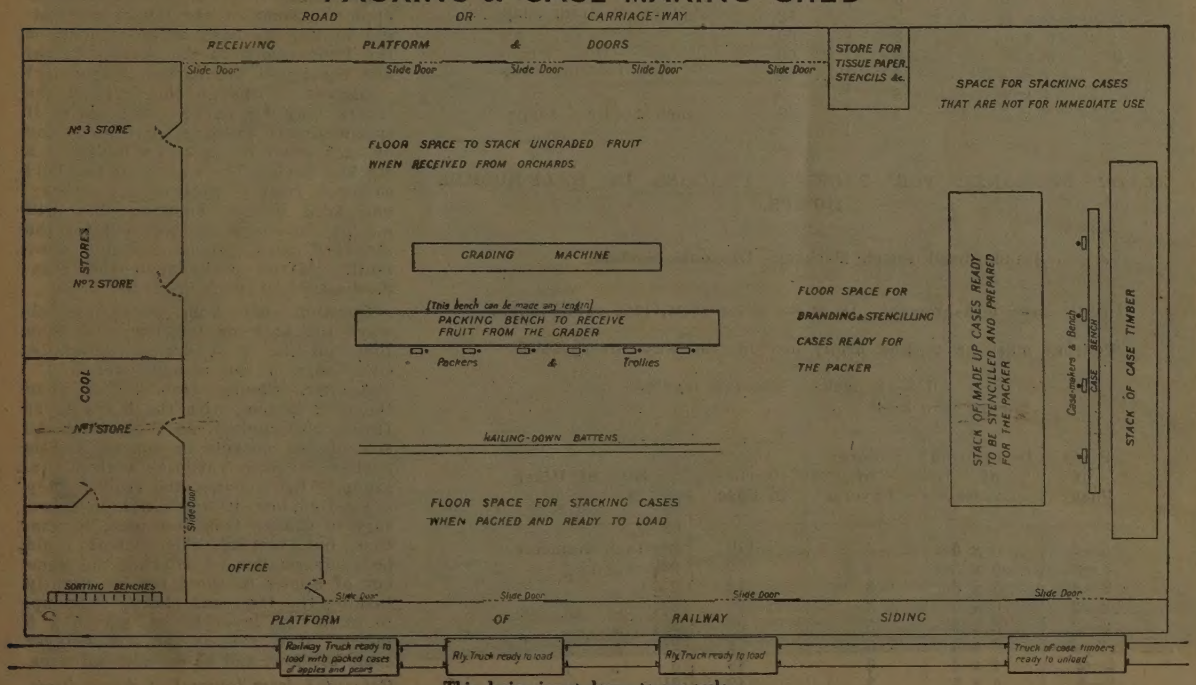


FIG 16

Pears Packed on 2—2 System. —

GROUND PLAN
OF
PACKING & CASE-MAKING SHED


ROAD OR CARRIAGE-WAY
RECEIVING PLATFORM & DOORS
Slide Door
Slide Door
Slide Door
Slide Door
Slide Door
STORE FOR TISSUE PAPER, STENCILS &c.
SPACE FOR STACKING CASES THAT ARE NOT FOR IMMEDIATE USE
No 3 STORE
FLOOR SPACE TO STACK UNGRADED FRUIT WHEN RECEIVED FROM ORCHARDS.
STORES
No 2 STORE
GRADING MACHINE
(This bench can be made any length)
PACKING BENCH TO RECEIVE FRUIT FROM THE GRADER
Packers & Trollies
FLOOR SPACE FOR BRANDING & STENCILLING CASES READY FOR THE PACKER
STACK OF MADE UP CASES READY TO BE STENCILLED AND PREPARED FOR THE PACKER
Case-makers & Bench
CASE BENCH
STACK OF CASE TIMBER
COOL
No 1 STORE
NAILING-DOWN BATTENS
FLOOR SPACE FOR STACKING CASES WHEN PACKED AND READY TO LOAD
Slide Door
OFFICE
SORTING BENCHES
Slide Door
Slide Door
Slide Door
Slide Door
PLATFORM OF RAILWAY SIDING
Railway Truck ready to load with packed cases of apples and pears
Rly Truck ready to load
Rly Truck ready to load
Truck of case timbers ready to unload

This design is not drawn to any scale.

As with apples, a layer of wood wool or corrugated cardboard is placed in the bottom of the case before packing, and again on the top layer before nailing on the lid. Each pear is wrapped in tissue paper, the end of the paper being drawn down round the stalk and folded neatly beneath the pear to serve as a pad or cushion for the other fruit.

It is very necessary to pack pears tightly, as the slightest rubbing or shaking of these fruits will be fatal.

READY RECKONER FOR PEARS.

Standardised Pear Packing for Export—Diagonal System—Half Bushel Dump Case.

Inside case measurement, 18 x 8⅜ x 7⅛ = 1,111½ cubic inches.

Pears must fit firmly with no two fruits resting directly on top of each other.

The number shown for each case is approximate; therefore, allow for very long or very short-shaped pears.

All 3—2 packs contain 4 layers.
„ 2—2 „ „ 3 „

Style of Pack.	Description of Layer.	Number of Layers in Case.	Number of Pears in Case	
3—2	7 x 7	4	140	
3—2	7 x 6	4	130	*2-inch Medium shape
3—2	6 x 6	4	120	
3—2	6 x 5	4	110	
3—2	5 x 5	4	100	*2¼-inch Medium shape
3—2	5 x 4	4	90	
2—2	7 x 7	3	84	
2—2	7 x 6	3	78	
2—2	6 x 6	3	72	*2½-inch Medium shape
2—2	6 x 5	3	66	
2—2	5 x 5	3	60	
2—2	5 x 4	3	54	*2¾-inch Medium shape
2—2	4 x 4	3	48	
2—2	4 x 3	3	42	*3-inch Medium shape

READY RECKONER FOR PACKING PEACHES IN HALF-BUSHEL DUMPS.

Standardised Peach Packing—Diagonal System.

Inside case measurement, 18 x 8⅜ x 7⅛ = 1,111½ cubic inches.

Peaches must be packed firmly but in no way overpressed.

All 3—2 packs contain 4 layers.
„ 2—2 „ „ 3 „

Style of Pack.	Description of Layers.	Number of Layers.	Total Peaches in Case.	Size of Peach.
3—2	6 x 5	4	110	2¼ inch diameter
3—2	5 x 5	4	100	2⅜ „ „
2—2	6 x 6	3	72	2½ „ „
2—2	6 x 5	3	66	2⅝ „ „
2—2	5 x 5	3	60	2¾ „ „
2—2	5 x 4	3	54	2⅞ „ „
2—2	4 x 4	3	48	3 „ „
2—2	4 x 3	3	42	3⅛ „ „

As all varieties of peaches are an average shape, arrows, to indicate which pack, are not needed. The same size in any variety will pack according to the table. Particularly in peach packing must the numbers in the layers be adhered to, and there must be no loose fruit, otherwise it will come too high and be bruised. Fig. 17 shows a case of Shepparton peaches at the Government Cool Stores, and illustrates the methods of packing the different sizes.

QUESTIONS AND ANSWERS.

As the following questions have been asked many times at various lectures and packing demonstrations, they are repeated here, with the answers given:—

Question.—I find, when packing the 2½-in. grade, that the top layer nearly always comes too low, and, to get the fruit to right height, the apples in the top layer have to be placed on top of those beneath, which, of course, spoils the diagonal system. Can you suggest a remedy in order that all the fruit will be diagonally packed and yet come up to the top of the case?

Answer.—The cause of the 2½-in. grade coming too low in this instance is due to packing it on the 2—2 pack. Use the 3—2 packs, which will alter the size of the pockets or spaces. With the 6 x 5 layer (193 apples in the case for the smaller of the grade) and with the 5 x 5 layer (175 apples for the larger of the grade) the fruit will come nicely to the top.

Question.—Why does it matter if apples in some of the layers are resting on top of each other as long as the fruit comes to the correct height and the layers are packed diagonally?

Answer.—Although the fruit in the layers may be packed diagonally, if specimens are pressing directly on top of each other we call it a mixed or a stacked pack. The case does not hold so much fruit if packed in that way, and keen buyers, knowing this, will not pay as much as they will for the standard pack, which contains more fruit. Mixed packs spoil the standardisation of packing fruit.

Question.—My 3-in. grade are always too high or too low. I pack them on the 2—1 system generally. Other sizes I can manage well.

Answer.—Change from the 2—1 to the 2—2 system, with the 5 x 4 layer (total, 108 apples), as this alters the size of the pockets or spaces, and is similar to some varieties with 2½-in. grade. If, of course, the fruit is only a fraction low, it would not be necessary to change from one pack to another, but, instead, the pockets could be made smaller by altering the number of apples in the layer by slightly turning the fruit and closing them up, to allow the layer to be, say, 5 x 5 instead of 5 x 4, if the 5 x 4 layer came too low, and so on with all sizes.

Reprinted from Journal of Agriculture, Victoria.

Fruit Packing Schools.

Important Educational Work by the Victorian Department of Agriculture.

Education Before Legislation.

FOR MANY YEARS PAST the necessity for uniform grading and packing has been urged. At the various State and Inter-State Conferences, grading regulations have been considered. Legislation, minus education, however, has proved ineffective.

The Victorian Department of Agriculture has now inaugurated a system for fruit packing instruction, which is meeting with high commendation from growers.

Our front cover depicts the fruit packing school recently conducted at Mt. Waverley, Victoria, where, at the Mount Waverley Cool Stores, Mr. Basil Krone, Government Packing Instructor, held his classes. In our last issue, we published details and illustrations of the approved diagonal pack for apples, together with a ready reckoner showing various counts. We have continued the packing article in this issue and dealt with pears, peaches, etc., including a ready reckoner for packing pears.

The procedure for obtaining the services of the Government packing instructor for conducting a packing school is quite simple. The local fruitgrowers' association obtains the names of the intending pupils, and if assured of a class of at least ten or a dozen pupils, application can be made to the Department for the services of its packing instructor for either a packing demonstration or a class. The latter, of course, is preferable, as after a week's tuition (the packing classes last a week) the pupils are capable of packing fruit on approved lines.

Growers can dismiss from their minds the thought that fruit provided for packing instruction becomes damaged; it does not.

The pupils are first shown the correct way to handle and wrap the fruit. The instruction proceeds step by step along sound lines. It does not matter if the pupil takes all day to pack a case, provided it be done correctly—accuracy first, speed comes with practice.

The beginner is taught to handle the fruit with the greatest care, and to be light handed in placing each fruit in the case without the slightest bump, packing only one layer at a time until the packs are learnt.

Fig. 17. Various Packs of Peaches.

A picturesque scene at Mount Waverley, near Melbourne, Victoria.

Pupils are then shown to bring all sizes and shapes up to the correct height in the case, also the method of nailing on lids to do away with all bruising. By doing this, even the pupils' first cases are well and faithfully packed.

* * * * * *

The photograph on this page shows part of Mr. Muir's consignment of Yates and Sturmers for the Sydney market packed by the pupils during their week's instruction. It will be noted that although there were several packers, the consignment looks as though it had been packed by one man.

We do not propose in this article to deal with the packing system, same having been fully described in our last issue and continued in this.

We desire to congratulate the Department of Agriculture upon this progressive move, and it is to be hoped fruitgrowers' associations throughout the State will at once take up this very important matter of applying to the Department for similar packing classes. Readers will remember that we published a few months ago, photographs showing the fruit packing classes conducted in Tasmania—a valuable and progressive move on the part of that Department.

* * * *

Mr. Sydney Stott, Orchardist of Wheelers Hill, and a well-known Melbourne business man, is to be congratulated on his good services to the fruit industry in this connection. Years ago, at his own expense, he brought to Australia Mr. C. D. Samson, a high grade fruit packer from the Yakima Valley, U.S.A. Mr. Samson conducted packing demonstrations in several States. Nevertheless, the movement in favour of uniform diagonal packing was very slow in taking shape.

Mr. Stott was one of the keenest workers in organising the recent packing schools conducted at Mt. Waverley by Mr. Krone.

It seems that growers at first do not readily grasp the importance and possibilities of a packing school. On later consideration, the practical nature of the work usually appeals. Persons of all ages attend the packing classes, but, of course, it is of particular interest to the new generation coming on.

Citrus growers have expressed great interest in the matter of packing instruction. Attention has been directed to the fact that the ready reckoner for one class of fruit, say apples, does not apply in the case of citrus. Nevertheless, the basic principle remains, viz., that in diagonal packing, no one fruit rests directly on another, and the cases are completely and firmly filled. Citrus fruit lends itself particularly well to uniform diagonal packing, and the ready reckoner is available showing how the sizes run in the correct filling of the case.

Fruitgrowers in Tasmania and Victoria cordially endorse this useful work inaugurated by the Departments of Agriculture; whilst in the other States, where packing schools are not yet in existence, the Departments of Agriculture would do well to undertake similar enterprise.

Work for advancement; work hard for it, but be fair about it. Do not become impatient or discouraged. It takes time to demonstrate fitness and ability. People do not step into better paying positions overnight.

Apples packed by pupils at the Mount Waverley packing "school."

Though packed by several different people of both sexes, the work appears to be done as tho' by one pair of hands.

See also illustration of packing school on "Fruit World" cover.

Fruit Growing Under Irrigation

Apricot Culture. Result of Pruning Tests.

The Berri Experiment Orchard.

By Our Special Correspondent.

THE HEAT WAVES experienced during the latter end of November and the beginning of December, when the maximum temperature stood between 99° to 116° Fahr. for seven days had a telling effect upon some of the fruits.

The **Sun scald** was most noticeable upon Sultanas, where the land was inclined to be a little hard, or where a hard pan had formed under the surface soil.

Whole bunches of fruit, in many instances, completely shrivelling up. This trouble is not general throughout the whole of the irrigated settlements, but is found in isolated spots.

As previously reported the **Apricot** crop is exceptionally heavy this season, and given good weather conditions throughout the harvest period growers should reap good returns. No other fruit that is dried is at present returning as high values per acre as the Apricot, nor are the sale returns received so quickly.

One cannot advise growers to plant Apricots on all soils, experience has proved that stone fruit trees, such as Apricots, Peaches and Nectarines are short lived on the Mallee soils.

The Apricot does best on deep land that contains a fair proportion of clay, where suitable land is available the Apricot is a good proposition.

The early Apricots, such as Early Newcastle, have been gathered and marketed, this variety is grown only as an early fresh fruit, there being a limited market in these areas for the fruit.

The Oullin's Early Apricot commenced to ripen early in December, in some settlements this fruit is grown to a limited extent for drying. The variety is not considered a first-class drying sort, it being rather soft and inclined to dry out light.

The Royal Apricots will be inclined to be on the small side this season owing to the heavy crop, the first of the fruit will be ready for drying about the middle of December.

The Moorpark fruit appears to be a little backward and does not give evidence of being ready for gathering before Christmas.

. . . . .

BERRI EXPERIMENT ORCHARD.

THE MEMBERS of the Berri, Glossop and Monash branches of the Agricultural Bureau of South Australia visited the Government Experiment Orchard on Wednesday, December 7th. The visitors were received by Prof. A. J. Perkins (Director of Agriculture), Messrs G. Quinn (Horticultural Instructor), C. G. Savage (Deputy Horticultural Instructor and Manager), and O. E. Halliday (Assistant Manager).

The **Pruning Tests** with stone fruit trees were first visited, the results of the tests being that the Royal Apricot, and Early Crawford Peaches when pruned to the "Unstopped Leader" gave increased yields, while the Moorpark Apricots and the Elberta Peaches gave the highest returns from the trees whose leaders were pruned to definite buds.

The newly installed **overhead systems of irrigation** were next inspected. The systems under test are the "Skinner" and "Nunan." As this is the first season that these schemes have been in operation no data as to results were available.

In the "Fertiliser and Manurial" trials with fruit trees, the condition of the trees to which nitrogenous manures had been applied was much in advance of the trees lacking nitrogen. Especially is this fact demonstrated where comprehensive tests are being carried out with Orange trees, the deep green, and dense foliaged trees being a big contrast to the light colored sparsely foliated trees in the "Unmanured Rows."

These tests go to prove that the Mid-River Murray soils are deficient both in organic matter and nitrogen, and where such are applied the plantations improve in health and carry heavier crops.

Great interest was taken in the new underground drainage scheme that is being installed. Approximately 4 acres of land has been rendered barren by the accumulation of salts in the upper layers of the soil. This salt patch is high up on the sandy slopes near the 120-foot channel.

The drainage scheme when completed will affect probably 10 or more acres of soil. Some idea of the accumulation of salts that has taken place in bygone days may be judged from the fact that analysis of seepage water from the affected area showed more salt than in ordinary sea water.

Mr. Quinn gave a practical demonstration in **Budding** which was of great interest to all the visitors, especially those who have citrus groves. The growers as they inspected the orangery were shown several trees that were cut down, as carefully kept data of each of these showed that they were unprofitable.

A proportion of the new shoots that were growing from the limbs will be worked over with buds from selected trees the records of which had proved them to carry heavy crops of high quality fruit. The trees when cut back were white-washed to prevent the hot sun from scalding the exposed bark.

The Navel Orange shows, perhaps, more strains than any other fruit and many of these strains are unprofitable.

All orange growers should take careful records of their trees and those which prove to be "boarders" should be worked over to a good strain.

Owing to the limited time, The Vine Training and Pruning Trials, Vine Fertiliser Plots, The Prune Collection, Citrus Stock Trials, and Ohanez Export Grape Plot, had to omitted from the inspection.

Great interest was displayed in the caprification of the Smyrna Figs; the work of distributing the wasp-bearing capri fruits was being carried out.

The Smyrna Fig trees are showing prospects of a heavy crop; given good climatic conditions these expectations should materialise as the crop of "Profichi" or Spring Capri Figs is a heavy one.

This plantation has been the means of arousing a widespread interest throughout the Commonwealth in the Smyrna Fig Industry. The dried fruits from the orchard have compared more than favourably with the imported article. The packed fruit has been placed on the Brisbane and South Australian markets, and merchants from the other States have sent orders for the fruit, but owing to the limited supply they could not be filled.

The planting of this fruit is going on rapidly and ere long Australia should be producing the whole of the Commonwealth supply of dried Figs.

The Cotton plot this season is limited in area (approximately ½ acre) the plot being sown to eleven (11) varieties to test out the value of the various sorts of Cotton under irrigation conditions. The plants are up about 6 inches high and are looking very healthy, and show promise of developing well.

"Fruit World" Appreciated.

Somerville, Vic.,
8/11/22.

Just a word or two in appreciation of the "Fruit World." We look forward with much interest to its arrival each month, as it contains a great deal of valuable information to the fruitgrower, whether a beginner or an old hand. I myself have been 40 years in the business, but can still get information to my advantage from the "Fruit World"; but to the beginner it is invaluable, containing as it does all the information he requires, no matter in what branch of the industry he is seeking knowledge, whether planting, pruning, spraying, manuring, cultivating or the disposal of his crop, which places him in the position of an equal footing with the most experienced grower. I consider that no fruitgrower's library is complete without its inclusion.

C. Murray.

A smooth sea never made a skilful mariner, neither do uninterrupted prosperity and success qualify for usefulness and happiness.

South Australia

Crop Report—The Thrip Pest—Flour as a Spreader.

Mr. A. O. Petersen, Crafers, South Australia, reports 11/12/22, the Fruit Crop report for District of Upper Sturt, is as follows:—

Apples, very light; plums, light; Peaches, heavy; Cherries, heavy; Pears, light; Strawberries, medium; Raspberries, medium.

The Apple crop is practically a failure throughout the State, except in a very few isolated cases; Rokewoods, however, are carrying a heavy crop.

Jonathans are puzzling, there are some patches with a heavy crop, some with a few scattered fruits, but most of them bare. Strawberry Pippin fair everywhere. Some of the early cooking and eating varieties have set a very fair crop. Rome Beauty, which is extensively grown, is almost a blank, also Buncombe.

In the blooming time all kinds of fruit were showing for a bumper crop. Of course, opinions as to why the Apple crop is a failure are many and varied, but I feel fully convinced there is only one reason why the fruit did not set, and that is the sudden burst of heat bringing countless millions of thrip, therefore, the stamen in every bloom was dead and dried up before the bloom opened.

If I remember rightly, South Australia was treated in exactly the same manner about eight years ago.

I hope we will be able to get some information through the Fruit World as to the best means of dealing with this most dreaded pest. It is quite out of the question to talk about killing thrip. I think our only hope is to find something to spray with that would be obnoxious to the pest.

Flour as a Spreader.—I should like to know in using flour as a spreader, what quantity is usually used, and if mixed in a cold state or boiled as you would for paste.

Answer.

Thrips.—Thrips are an exceedingly troublesome pest to deal with as the tiny insects get right inside the blossoms and do their damage there.

As a deterrent spray, the trees may be sprayed with Lime Sulphur (Summer strength), Tobacco Water or Benzole Emulsion, just when the trees are showing flower buds. Tobacco water and Benzole Emulsion can with safety be sprayed when the fruit trees are fully in flower.

The theory has been advanced, and there is reason in it, that where irrigation is practicable, the ground should be kept moist during the dry warm weather about the blossoming period, so that the development of the thrip pest can be retarded. Once the fruit has set the thrips can do no damage.

Flour as a Spreader.—Mr. Chas. French, junr., Victorian Entomologist, advises as follows:—

Flour Paste and Billboard Paste are excellent spreaders and act as adhesives as well. They may be used with safety in all sprays, because they give no chemical reactions. Flour paste and certain of the dry billboard and paperhangers pastes should be mixed in a small quantity of hot water before adding to the spray tank, and are somewhat difficult to handle. A specially prepared billboard and paperhangers paste, known as "steamed paste" is already cooked, and as a wet paste mixes readily with cold water. It may be obtained in barrel lots or in small quantities from paint and paper dealers.

The amounts to be used are as follows:—

Flour (cheap grade), 2 to 4 pounds in 200 gallons of dilute spray material.

Dry billboard paste, 2 pounds to 200 gallons of dilute spray material.

Steamed paste, 4 pounds to 200 gallons of dilute spray material.

Seasonable Orchard Notes.

Mr. G. W. Summers, Coromandel Valley, South Australia, writes, 12th December, 1922:—

Orchard Work.—January is a very busy month with us. Apricots, Peaches and Plums to be picked for market three times a week; should there be rain the cultivators should be at work; also we must spray to check Codlin moth. This is generally 12 to 14 hours-a-day month.

Fighting the Pests.—As regards fruit pests I regret to say we have practically everything going this year; red spider is very bad, for this we have used lime sulphur; also thrip, was very prevalent, but was noticed too late to do anything; there is a good deal of Black Spot on the Apples, and Shot hole in Apricots, notwithstanding having sprayed with "Bordeaux"; this has been brought about by the wet spring.

Crop Report.—Apricots, Peaches, Jap. Plums, good; Pears, very small; Apples, the early flowering, Cleo. and Jonathan, with me have set a fair crop, every other variety a failure. Generally speaking, in this district the crop of Apples is very small indeed.

Summer Pruning.—I do very little summer pruning, largely owing to want of time; if possible we cut out all useless wood in the Peaches, and shorten back spurs that have not fruited. I also, time permitting, shorten back and cut out all excess growth in the Apricots, otherwise the short new fruiting spurs die for want of light. I do a great deal of thinning of fruit in the Jap Plums, as I grow them especially for table fruit; this year I must have relieved the trees of quite 75 per cent. of the fruit; Peaches and Nectarines are also thinned, but not to the same extent.

Interplanting.—I am quite satisfied that it is the right thing to interplant varieties flowering at same time, as you get a much better setting; would suggest not more than 4 rows of any variety.

Distance for Planting.—I do not think any hard and fast rule can be set down in reference to distance, as class of trees make a difference also nature of soil. I have Apricot trees planted 24 feet apart, on strong clay soil, these are now 21 years old, and some are touching each other, they are very fine trees. I would prefer 24 feet apart, it gives room for cultivation; and have plenty of room on the headlands, say 30 feet. I regret I did not do so.

River Murray Irrigation Areas.—A correspondent from Berri, River Murray, South Australia, writes, 10/12/22. The whole of the river areas that I have seen lately are a picture of health the vines especially are making wonderful growth. **Apricots** are just commencing to ripen, that is, the drying varieties. Given good harvesting weather the apricot growers should do well this season.

Commonwealth Canned Fruit Pool.

A meeting of the Commonwealth Fruit Pool Board was held at Melbourne on December 18 to 20.

There were present:—Messrs. W. J. Foster (chairman), A. W. Palfreyman, —. Fairley, J. Donaldson, E. J. Polkinghorne, J. P. Piggott, E. J. Mulvaney (Central Customs). Messrs. Evatt and Youll (Murrumbidgee Irrigation Areas Commission) attended by courtesy, as also did Messrs. T. B. Nossiter and Tate (2) (New South Wales).

The Leeton and proprietary factories in New South Wales represented above decided to operate with the Commonwealth Pool.

Inspection.—Mr. Allan (Chief Inspector) attended to advise on the question of inspection. A standard of inspection is aimed at which will ensure the best quality pack. Green fruit will be rejected; only well coloured fruit will be accepted. Where fruit has to be carried by rail, growers will need to take particular care in packing.

Duty on Softwood Cases.—It was reported that the Tariff Board had rejected the proposal that softwood cases imported in shooks to be used in packing canned fruit for export, should be subject to a refund of the duty.

Secretary.—The appointment of Mr. E. Hulme as secretary was confirmed.

A large amount of detail work was dealt with at the meeting.

1923 Victorian Orange Expected to be Light.

A light setting of Orasges is reported from most of the leading citrus districts of Victoria, and the prospects for the coming season are for a light crop.

The storms of adversity, like those of the ocean, rouse the faculties and excite the invention, prudence, skill and fortitude of the voyager.

Commercial Items.

Shepparton Preserving Co. Loss of £57,000.

The Shepparton Fruit Preserving Company's report and balance-sheet for the year ending August 31, 1922, states that sales amounted to £103,381. The tonnage treated was 3,164 tons, which was satisfactorily and economically dealt with. The directors had had the machinery and steam service rearranged to ensure savings in operations. The directors state that they regret that owing to market conditions in Great Britain and on the Continent, realisations had had to be made at a heavy loss, and stocks in London had been written down to a figure equivalent to present net market value. In the coming year operations would be conducted under the Commonwealth fruit pool. The directors have been able to arrange for cannery products to be marketed under their own S.P.C. label.

The balance-sheet showed that of the authorised capital of £100,000 in £1 shares, 71,138 shares were unissued. There were 9,462 shares paid to 9/- each (£4,257); 3,653 shares paid to 8/- each (£1,461), and 15,747 shares paid to 6/- each (£4,724). Victorian Government No. 1 loan amount to £12,314, Victorian Government railway siding loan to £567, Victorian Govt. No. 2 loan to £30,000, Victorian Government No. 3 loan to £6,000, John Sanderson and Co.'s advance account £64,300 Commercial Bank No. 1 account (overdraft), £28,081, Commercial Bank No. 2 account (overdraft) £74,998, National Bank account (overdraft) £34,101, loans on properties £2,300, and sundry creditors £2,859. Balance-sheet total £265,213. The assets include stocks in London at market value, and in Australia at cost price, £105,329, sundry debtors £31,373, buildings (less depreciation) £14,783, machinery (less depreciation) £43,598, and plant (less depreciation) £3,709.

The profit and loss account shows that stocks at September 1 last year were valued at £69,451, goods purchased amounted to £54,031, fruit purchased to £25,746, wages £21,030. Interest (£13,019), depreciation (£5,503), and other charges made, with the debit brought forward, a total for the account of £266,231. Sales for the year were £103,381, stocks on hand at the close of the term £105,329, and rent received £85, leaving a debit balance to be carried forward of £57,435, against £19,931 shown at the opening of the year.

Mr. H. M. Leggo and Co., Bendigo.—After providing for depreciation, bad debts, etc., H. M. Leggo and Co., merchants and manufacturers, of Bendigo, during the last financial year made a loss £12,835. The directors state that like many other jam and preserving companies throughout Australia, the company had passed through a most strenuous time. One of the most potent contributing causes was the utter confusion into which the trade had been thrown by the uncertainty arising from the Government control of sugar, the most important element in preserving and canning. The high price of sugar seriously restricted sales. Government interference with sugar should cease, when the company's business would be restored to a profitable basis.

Victorian Orchardists' Co-operative Association.

Years Trading Loss of £12,000.

The annual report of the Victorian Orchardists' Co-operative Association Limited (signed by J. Hume Cook, chairman), refers to the engagement of a new manager and the dismissal of the previous one for unsatisfactory business dealings. The commission business was increasing and the cool stores were of benefit to shareholders.

The balance-sheet shows on its liability side—Cash capital, £7,642; debentures on packing sheds and accrued interest, £817; State Government loans and interest accrued, £22,658; bank overdraft, £14,951; sundry creditors, etc., £5,204.

Compuda oranges, grown by Mr. H. Wicks, Payneham, S. Aust. Fruit elongated, almost seedless, rich flavor, late, hangs well. Described on page 224 "Fruit World" July 1922.

On the assets side are included—Freehold properties, land and buildings, in Flinders-lane, £23,952; cool stores, £4,628. (The Government holds a first mortgage and the English, Scottish and Australian Bank Ltd. a second mortgage on the Flinders-lane property.) Packing sheds (subject to debentures), £1,307. Leasehold properties, £1,278; customers' and growers' accounts, £5,994; shares in other companies, £1,770; stocks on hand, etc., £1,660.

The balance-sheet has not provided for depreciation in cool store plant. It includes £336 as goodwill on Western Market stand, and £5,994 as amount owing from customers and growers.

The profit and loss a/c shows—Losses on supplies and produce, £5,882; salaries and wages, £2,743; and interest, £2,239. The total earning was £5,238, and expenditure £17,301—a loss for the year of £12,063.

Rosella Preserving Co.—The annual meeting of shareholders of the Rosella Preserving and Manufacturing Co. Ltd. was held on December 7. The balance-sheet and profit and loss a/c reveal a satisfactory state of affairs. The paid-up capital is £150,000, and the reserve fund £32,678. The freehold property is valued at £80,229. After providing £7,278 for depreciation, etc., the profit for the year amounted to £18,183, from which a dividend of 12 per cent. was declared.

Calculate Sugar Duty by the Ounce.—When giving evidence before the Federal Public Accounts Committee, Mr. Pritchard, the Secretary of the Australian Sugar Producers' Association, completely gave his case away. He was asked what duty would satisfy the Queensland sugar producers. Mr. Pritchard answered: "1½d. per lb." The chairman then inquired how much that was per ton, to which Mr. Pritchard naively responded: "We would prefer the duty to be calculated at so much per lb." Clever Mr. Pritchard! He only made one mistake; he should have asked that the duty be calculated at so much per ounce. That would have looked so much smaller than £14 a ton.

Mildura Vineyards Protection Act.—During December, the Victorian Legislative Assembly passed a measure giving the Mildura Vineyards Protection Board additional powers in the inspection of fruit, vegetables, trees or plants coming into the district, and to prohibit such as are affected by disease. In the discussions in Parliament it was stated that the diseases which the Mildura district desires to keep out were the Queensland Fruit Fly and Phylloxera.

Crop Reports and Orchard Notes

Interesting Items from every State and New Zealand.

Victoria.

East Burwood.

Mr. John Stevens, Blackburn (Vic.), writes (2/12/22):—

The principal fruits in East Burwood are Apples (Jonathan, Romes, Yates, Five Crowns, Stewarts), and Pears, Williams, B. Bosc, W. Cole, W. Nelis, and Packhams.

General crop prospects for coming season are Apples, Jonathans, taken all round, medium; Romes, medium to good; Five Crowns, medium to heavy; Yates, medium to good; Stewarts, good. Other old varieties such as Rymers, Pomme, etc., light to good.

Pears, Williams, light to good; B. Bosc, medium; W. Cole, light to good; W. Nelis, light; Packhams, light. Others light to good.

Plums, generally light. Cherries good to heavy. Lemons, good. Apricots, few grown, light.

From present indications taking Pears and Apples together, I should say the all round crop should be equal to last season.

There is every indication at present of a dry season. Some of the Apples are even now thinning out very much, and should this dry spell continue much longer, it will prove serious to this district and others. We had very heavy rains about a month ago, and these rains consolidated the soil so much that the moisture is being evaporated very fast where land has not been worked. Some of the orchardists have not finished ploughing yet owing to the ground setting so hard, and herein lies the trouble. As growers sprayed thoroughly to check Brown Rot and there is very little about.

Bud Selection.—I would like to see more attention paid to the methods for improving the bearing capacity of fruit trees, viz., nurserymen to graft and bud from proved and pedigreed stock; typical and fruitful.

Batesford.

Mr. E. E. Weitnauer, Batesford, via Geelong (Vic.), states

The principal fruits in this district are:—

Cherries.—Werder's Early, Early Rivers, Florence, St. Margaret, Early Lyon.

Plums.—Early Orleans, Diamond, Angelina, Grand Duke, Washington, Jefferson, Egg Plum.

Apricots. — Moorpark, Dundonald, Tilton.

Pears.—Williams, Winkfield, Keiffers, Packhams, Capiaumont, Josephine, Black Achan.

Apples.—Jonathan, Romes, Reinette, Delicious, Dunns, Staymans Winesap, Stone Pippin, Stewarts.

Peach trees in this district have suffered severely with the Curl Leaf and Black Aphis, and are almost bare of foliage; fruit has not set, being a complete failure.

The growers of cherries are suffering with an almost new pest in this part—a black aphis has developed at an alarming rate. and are now forced to another spraying with tobacco, same formula as for peaches. We note cherries on buds affected with the aphis, will not ripen with others, and when they colour look pinched or only ripen on one side.

Spraying the second time for Codlin Moth is now in full swing. Generally speaking, the fruit is fairly clean from spot or scab.

Shepparton East.

Besides the varieties mentioned in crop reports in our last issue, Mr. C. J. Nash states:—Elberta, Kia Ora and Lady Palmerston are also good **Peaches** for the market, but come in at the glut season—end of January—so are not favoured for that purpose, but are the best Peaches I know of for drying, and are largely used here for that purpose.

In **apricots,** the varieties planted are Moorparks (though it has proved a shy bearer here of recent years), Mansfield, Rose du Vacluse (has yielded the heaviest results in this district), Campbellfield Seedling, Tilton (one of the best for canning; fast coming into first favour), Shipley's, Blenheim (one of the best for both canning and drying), and Oullins Early, for market purposes.

In **pears,** Williams' predominates; it is the best of all, both for canning and drying, as well as the best market pear of its season. Packham's Triumph, Josephine des Malines.

In **prunes,** Prune D'Agen, Fellemberg and Goulburn Valley French Prune.

Plums.—Mostly Japanese varieties.

Oranges.—Washington Navels and Valencia Late.

Lemons.—Lisbon and Eureka.

Grapes, Sultanas, Currants, Gordo Blancos, Waltham Cross, Doradillo, Ohanez, Purple Cornichon and Flame Tokay: the last three all good export varieties.

Nectarines.—Gold Mine, New Boy, Victoria Rivers and Early Rivers.

The heavy wind storms of a little while ago blew off most of the Japanese plums. The yield of these will be very light in comparison with last year.

Oranges and lemons are flowering well; some have their Valencia oranges still hanging on the trees, and the new season's crop just setting.

The first irrigation for the district is now in progress; only newly-planted areas watered a few weeks ago.

All varieties of grapes are showing well, and most vineyards have been sprayed with a Bordeaux or Burgundy mixture as a precaution against Black Spot and Downy Mildew, though the present dryness of the season is against the development of these diseases. Downy Mildew is more to be feared this season than Black Spot, as it is a lightning spreader when moist, muggy conditions are prevalent after rainfall.

Tyabb.

Apart from the four main varieties of apples, Jonathan, R.B., Statesman, and Londons, there are also grown here Gravenstein, Reinette, Sturmer, Dunns, Williams Favourite, and Alfriston. Other varieties are grown in a small way in a few orchards, but these are the main lines. In new plantings, Democrat and Edna May are receiving some attention, but whether they will prove leading varieties is yet to be seen.

Pears have not, up till recent years, received much attention, but quite a large number of growers are now planting, or have planted, blocks of from five to 10 acres in extent. The varieties favoured are Broompark, Keiffer, Packham's Triumph, Winter Cole, Josephine, B. Bosc, Howell and Williams.

The fate of the plums is now trembling in the balance with a lot of growers, as they have not been a very profitable line for the last year or two. The varieties mainly grown are:—Japanese (Burbank and Satsuma), European, Grand Duke, President, Diamond, Angelina, and Prince Engelbert (dark); Coe's Golden Drop and Cole's Golden Gage (light).

Apricots are just about all Moorpark; no other variety is grown to any extent.

The **Cool Store** has now closed down for the year, and the staff is busy overhauling and cleaning the plant. The packing shed has also closed operations, after packing about 18,000 cases for the season. As the shed has only been running for the past two seasons this is considered by most to be very satisfactory.

Ploughing is now finished, and the first arsenate spray is on; the second will be put on about the beginning of December, and the third about Christmas.

W. P. Mair.

28/11/22.

South Australia.

Crop Report.

A comprehensive crop report for the present and coming fruit season has been supplied by Mr. Geo. Quinn, Government Horticultural Instructor, South Australia, the details of which are as follows:—

River Murray Irrigation Areas.—Apricots, Almonds, Currants, heavy; Peaches, moderate; Nectarines, Pears, Plums, light; Gordos, promise heavy; Sultanas, patchy; Wine Grapes, fair to good.

South of Adelaide. — Apricots, Peaches, Nectarines, Currants, Loquats, Strawberries, Almonds, Wine Grapes, good; Pears, Cherries, medium; Plums, light (except Japs); Apples, fair in sorts; Quinces, fair.

North of Adelaide.—Apricots, heavy; Peaches, Almonds and Quinces, fair; Pears, medium to good; Plums, Currants, Wine Grapes, good; Apples, light generally.

Mt. Lofty Ranges (East of Adelaide)—Apricots, Peaches, Cherries, good; Pears, light, except W.B.C.; Plums, light, except Japs; lemons, good flowering; Apples, poor generally; Wine Grapes, promising well; Quinces, fair.

Adelaide Plains.—Apricots, Loquats, heavy; Peaches (free stones); Nectarines, Pears, Gordos, Almonds, good; Plums (Jap.), heavy; Lemons, plentiful; Wine Grapes, good promise.

South Eastern.—Apricots, Peaches, Quinces, good; Pears, Plums, fair to good; Cherries, Gooseberries, fair; Apples, good promise; Wine Grapes, injured by frost.

As is usual, the growers are finding that there are more Apples, particularly of the Cleopatra variety, than was first anticipated, but this will not make our crop anything like an average one.

The newly formed **Oranges** owing to the sudden extremes of temperatures experienced during the past month, have been shed from the trees with unusual freedom, and the promise for a good crop is poor.

With Lemons and Figs it is too early to state crop prospects.

Marion.

The land in this district is capable of growing the finest quality of table grapes in South Australia. The grapes carry a lot of sugar, and are very firm and pack well. The wine grapes grown are much sought for by the wineries, for their sugar contents are so high.

Land values are high, bare land bringing from £100 to £150 or more per acre. There is a splendid supply of good water for irrigation purposes to be obtained by sinking or boring for it. I have five wells on my own property, which yield 6000 gallons per hour by pumping day and night, if required.

All my wells were put down under the divining rod, about which there is so much contention. I do the divining myself, so as far as I am concerned, it appears to be the results justify the value of the rod, if used by a genuine diviner. At all events, the proof of the pudding is in the eating thereof.

All the news in your valuable "Fruit World" strikes me as being most important, and I can honestly say that I have profited very materially in following out many of the suggestions and proved formulas found therein from time to time.

The most important thing now, in my opinion, is to **keep on pegging away** at the Federal Government re the opening out of new markets and the best facilities of sending the fruit away, or else bringing in more people to populate this vast continent, and so automatically level up the demand to use up the supply.

Geo. Western.

Blackwood.

November 10, 1922.

Mr. A. Keith Ashby writes:—

The principal varieties of apples are — Jonathans and Cleopatras, but several growers have Rokewoods, Scarlets, Spitzenburg, Dunns and Rome Beauties; the last named does not crop or colour satisfactorily.

Pears.—Williams, B. Bosc, B. Cap., B. Clairgeau, B. Diel, Josephines, Packham's Triumph, Keiffers, Glou Morceau. Most growers have a few acres of pears, but nowhere near the acreage under apples.

As regards fruit prospects on this property, Cleopatras are good, but generally they are medium. Jonathans are mediums (heavy were dium to light. Romes are very (flowered early, result of red oil spraying in winter), otherwise a failure in the district, I believe. Spitzenburg a failure, owing to hot weather during flowering; the same applies to Stone Pippins, Delicious and Stayman's Winesap. Scarlet Nonpariels are medium to good, same with Rokewoods. Dunns, fair to medium. The crop of apples on this orchard will be better than last year, I hope; but the general run in the district is worse than last year

Pears.—My Keiffers, Williams, B. Clairgeau, B. Caps. are fair; other varieties are poor. The same throughout the district, I believe.

There was an exceptionally heavy flowering of apples; but we had very hot weather at the time, which spoilt the setting; thrip was bad, but I blame the weather, and not thrip, for the failure of some varieties, as earlier flowering sorts have set.

Clare.

Mr. J. Victorsen writes:—

I sprayed in October with Bordeaux mixture for anthracnose, using 6 lbs. bluestone and 4 lbs. lime to 50 gallons of water; am using the same mixture for pears, with arsenate of lead added. Bone and super. are used for both orchard and vineyard, from 3 to 4 tons to the acre. Intend also trying this year sulphate of ammonia, mixed with super.

Prune growing is becoming very popular in this district; some hundreds of acres will soon be in bearing.

There are prospects of a good crop of vine fruits. **Prunes** and **pears** have never looked better. Prunes, particularly good, especially D'Agen and Splendour. Prune-growing is becoming very popular in this district; some hundreds of acres will soon be in bearing.

A correspondent writes:—

The district of Clare may be said to be adapted to the growing of Grapes and fruit, more particularly for drying purposes, also for the production of wine Grapes.

In the early days fairly extensive areas were planted with Apples, which were intended for export. During the past few years a considerable area of these Apple trees have been grubbed out, owing to cost of production being higher than ruling market rates.

There areas have nearly all been replanted with **Prunes**, which do well in this district, so Clare will become an important Prune producing centre in the near future.

In addition to these grubbed areas already mentioned, new land has also been planted with Prunes.

Apricots and Peaches do well in parts of the district. Apples grow well and also Pears, when planted on the low-lying flats.

There are slight traces of anthracnose in Currants and Sultanas this year, but nothing to be alarmed about.

Hectorville.

Messrs. T. B. Robson & Son (21/11/22), report:—

Most of the fruit in this district is grown for the Adelaide market; the balance is sold at factories.

Peaches (Crawford, Elberta, Palmerston, Salway), good crop (last year, light to medium); **Apricots** (Moorpark, Oullins, Newcastle), heavy (last year, light); **Almonds**, fairly good; **Oranges**, too early to say, though they look well (last year the crop was fairly light); **Olives** are flowering well; **Loquats**, fair; **Plums**, early sorts light (last year, good); Japs., good crop (last year, light); **Prunes**, light.

Western Australia.

Crop Anticipation.

Writing with regard to the fruit crop anticipations, Mr. R. Carter of Paterson and Co., Perth, states (5/12/22):—

Speaking generally, the season has been a most peculiar one, and, in fact, we have not had a great deal of hot weather at all. With the exception of one or two hot days the weather has been very mild, and even to-day we have had a very heavy down-pour of rain, which in previous years has been unknown for the month of December.

On the average the crop right throughout Western Australia will be a heavy one—particularly Jonathans, Cleopatras and Dunns. The Romes are showing very light, but all other varieties, including the late fruit—Rokewoods, Yates, Statesmen and Dougherty are on the heavy side. If anything, the setting is a little behind times and this is no doubt due to the mild weather. The woolly aphis is making its appearance very thickly in some districts, but on the whole the fruit is fairly clean.

In the South-West Pears are showing a good crop, and in some parts of Mt. Barker the crops are heavy, while in others the crops are light.

Stone fruit crops throughout are fairly heavy—particularly Plums. As far as export is concerned, I have heard that unless the freight rate is reduced at least another 1/- shipments will be curtailed on this account. Although it is early to make a statement, I do not think this State's figures will exceed last year's, and probably there may be a difference of 40,000 cases.

Harvey.

Mr. Geo. H. Atkins, Uduc Brook Nursery, Harvey, W.A., under date 27/11/22 writes:—

The principal fruits here are citrus, with smaller quantity of deciduous fruits, mostly Apricots and Peaches. Principal varieties of citrus are Washington Navels, Valencia Lates and Lisbon Lemons, which appear to be setting heavily. Lemons are almost unsaleable, as they have overtaken the demand. All varieties of stone fruits are heavy, also Pears; Apples, medium; Loquats, very light, prices high, about 20/- case.

Crops harvested last season very light all round. A lot of this district, which was formerly under citrus, has been cleaned out and put under grass for dairying purposes, as some orchards went out through neglect, and others should never have been planted on account of unsuitable land and want of drainage. About double the acreage under Oats this season to what there generally is, and a good acreage under Potatoes, crops of both medium to good. The growing season so far has been good with late rains, and irrigating has not commenced yet. Live stock are mostly in good condition.

Mullalyup.

Mr. J. Hawter, nurseryman and fruitgrower, Mullalyup, W.A., writes (24/11/22):—

Re crop prospects, I place them below in the order of their importance in this district.

Apples—Most varieties promise a fair crop.

Pears—Bartlett heavy; others, moderate to light.

Peaches and Nectarines—Mostly heavy crops; require thinning.

English Plums and Prunes—Light.

Japanese Plums—Mostly good crop.

This season's crop is much better than last year.

Kelmscott.

Mr. C. Molyneaux, 30/11/22, writes:

The principal fruits grown here are citrus and stone, with a fair quantity of Bartlett (Williams') Pears.

Citrus varieties—W. Navels, Late Valencias; Mandarins—Emperor, Glen Retreat; Lemons.

Stone fruits—Jap. Plums, Apricots and Peaches.

Prospects—Generally good, though not so heavy as at first expected, owing to changes in weather.

Last year, the crops were generally very light; this year compares more than favourably with last year, though indications point to probable low values.

Pinjarra.

Mr. R. Ecclestone, Pinjarra, W.A., writes, 22/11/22:—

The principal fruits grown in and around Pinjarra are Oranges (W. Navel and Late Valencia), and Apples (Jon., R.B., and Dunn's). Apples do not thrive too well here, being too near the coast.

Present indications are citrus and stone fruit, heavy; Apples, medium to light. The crop harvested last year was very light in Oranges and medium Apples, with stone fruits a failure.

Last season a few hundred cases of Oranges (Navels) were exported to London with satisfaction, results realising 20/- average, but freight and handling charges, being very heavy, the net return was slight; but the local market was relieved, which made local prices a little better.

Indications are for a fairly large export trade next June and July.

Tasmania.

Orchard Work for January.

By P. H. Thomas, Government Fruit Expert.

In answer to queries regarding orchard work in Tasmania, for January, the Government Fruit Expert (Mr. P. H. Thomas) writes:—

Cultivation.—Keep soil surface loose by cultivation, especially with the harrows, after rain, otherwise a crust forms and moisture evaporates.

Spraying.—Spray Cherries, Plums and Pears to combat the Pear Slug (Selandria cerasi). Do not wait till trees are partially defoliated before spraying with arsenate of lead. As the later broods of Codlin Moth appear, keep spraying with lead arsenate. Destroy infested fruits.

Black Spot is rather prevalent in some districts, especially amongst Pears.

In Tasmania most growers use Bordeaux or Burgundy spray (4—4—40) at the "pink" stage, following with lime sulphur at summer strength (1—50 at 33 deg. Baume test) as necessary. Tender skinned varieties, such as C.O.P., Scarlets, etc., need a pound less bluestone in the Bordeaux and Burgundy dry formula at the pink stage to minimise the danger of skin russetting.

Black Cherry Aphis.—This season has shown a marked development in the Black Cherry Aphis, Myzuscerasi (Fab.). The Fruit Division has received specimens of badly infested trees, from all parts of Tasmania. The eggs of this pest are deposited in the crevices of the branches and hatch out in the spring.

In this respect the Black Cherry Aphis is different from the Black Peach Aphis, with which it is often confused, in that the latter winter on the roots of the trees attacked.

A good oil spray (1—10) at the delayed dormant period will destroy a large quantity of the eggs and any young newly hatched aphides. Subsequent treatment should be with Black Leaf 40 or nicotine sprays, when fruit and foliage are on the tree.

These are the only outstanding pests this season, except powdery mildew in certain districts.

Re-worked Trees.—Where trees were re-worked last spring, and growths are rank, pinch back the leaders, cover exposed cuts with Bordeaux paste to prevent fungus infection. Limbs that have missed should have had a shoot maintained in a desirable position in order to bud next month.

Reduced Crop Prospects.—As the season advances it is evident that the fruit crops will be of a patchy nature.

Apples.—The Tamar, N.E. and N.W. districts are showing good, medium crops. Bagdad and the Derwent Valley are light to medium, whilst in the Huon and Channel the setting is very variable. Some orchards are carrying very heavy crops, whilst others, almost adjacent, have only a light setting of similar varieties.

Pears.—Generally light in all districts.

Margate.

Worsley Bros., Margate, Tasmania.

Prospects for coming season re Apples, Pears, and fruit relative kind are not so promising as last season. Apples, most kinds, have only medium crops in most districts, Scarlets being the exception so far, which promise nice even crops. Black spot has put in an appearance and with the showery weather continuing will, am sure, make the appearance greater.

Pears seem only on light side.

Apricots also light, and so Cherries. Plums, most kinds heavy, but are thinning very much now, especially Grand Duke. Small fruits promise a bountiful harvest, the weather being suitable, beautiful showers following warm sunshine with little wind.

Spraying for Codlin moth has kept growers busy to date, most being determined not to let the pest get too much of a hold, as experience has proved that heavy losses are caused through either neglect or inferior lead, which some blame for so much infected fruit.

Motor lorries are taking a great part in conveying fruit from growers' sheds the handling being less than water carriage and less complaints re bad condition at destination, so taking in the convenience so far, I fancy they are here to stay.

The chief varieties of Apples grown in our district—Sturmer, Scarlet, New York Pippin (Cleopatra), French Crab, Adams P. M., Cox's Pippin, Jonathan, Democrat, last two varieties take first place in younger orchards planted last six or seven seasons.

Pears.—Winter Cole, Nelis and Josephine are mostly favored in this district.

Woodbridge.

Mr. John Baldwin, Woodbridge, writes under date, December, 6th 1922—

The principal fruits grown in the Channel district are Apples and Pears. The varieties are chiefly Apples—Crofton, Scarlets, Ribstons, Jonathan, French Crab, New York (Cleopatra), Alfrison, Dunns and Romes.

Prospects for next season's crop—
Apples—medium—a little lighter than last season.

Pears—medium—about the same as last season.

The crop harvested last season was the heaviest known. In the Channel district we produced over 200,000 cases. The reason for this heavy crop last season is thought to be chiefly the splendid summer rains.

Sidmouth, River Tamar.

Mr. N. D. Wivell, of Sidmouth, River Tamar, North Tasmania, writes, 27/11/22:—

Principal fruits grown hereabouts are Apples (Jon., Cox, S.T.P., Cleo.), and Pears (W.B.C., W. Cole, Keiffer).

The general prospects for 1923 are that the crop will be heavy in Apples, but very light in Pears. Some orchards good, and others medium. Last season, the crop was medium to heavy.

Present indications are generally better than last year.

A few plantings of Granny Smith (5-year-old) are showing well for growth. Apples generally free of black spot.

Sidmouth Jetty.

In the 1922 season approximately 22,000 cases passed over this jetty. A new jetty is in course of erection.

New South Wales

Richmond.

Mr. H. A. Wood, Fruit Inspector, Richmond, New South Wales, advises that Citrus is the principle fruit grown in the Richmond and Kurrajong districts.

The varieties are Emperor Mandarin, Valencia Late, Washington Navel, and Parramatta Common orange.

The coming crop is expected to be very fair, but not nearly so heavy as was hoped, owing to a severe dry spell, which has caused young fruit to fall. This is particularly noticeable in respect of the Valencia Late orange.

Queensland.

Montville.

Mr. W. H. Harvey, Montville, writes, 22/11/22:—

The principal fruits grown in this district are citrus and Pineapples.

The general crop prospects will be only medium crop of citrus and Pines generally.

The crop harvested last season could be only classed a light to medium.

New Zealand.

Crop Prospects and District Reports.

The Director of the Horticulture Division has received the following reports from his officers regarding orchard and marketing conditions at the end of November, 1922:—

North Auckland.—Apples, Pears and Strawberries, average; Lemons, average blossoming; Nectarines and Peaches, moderate. Very little black spot showing. The extremely heavy blossoming did not result in heavy setting.

South Auckland.—Apricot crops above average. **Fire Blight** vigorously dealt with. Growers combining to eradicate outbreak. Pears and Apples heavy.

Waikato.—Apples below expectations. Very light setting on most varieties. Apricots very light. Cherries light. Lemons good crops setting. Nectarines light (but better than expected). Peaches, light on most varieties. Wiggins and Paragon best. Pears, crops lighter than expected. Black spot rather prevalent. Plums, light. Japs. heavy.

Poverty Bay.—Apples, variable. An extraordinary number of blossoms proved non-fertile. Apricots, fair to good. Lemons, flowering freely; Nectarines, light; Oranges, good crops were realised, now making new growth. Peaches, fair to good. Pears, good (fairly free from black spot). Plums, fair to light.

Hawkes Bay.—Apples, medium-heavy (Dunn's below average). Apricots, good. Black Currants, heavy; lemons and Oranges, light crop expected (dry season). Nectarines, heavy; Peaches and Raspberries, heavy; Pears, much below anticipations; Plums, light; (Japs), heavy; Walnuts, average.

Present indications are that the district crop of Apples and Pears will be about equal to last year, while the stone fruit crop will be about 25 per cent. heavier. Dry weather causing growers to thin the crop rigorously.

Wanganui.—Apples, fairly heavy. Mildew severe. Apple leaf hopper greatly in evidence where earlier spring sprayings not resorted to—proving as destructive as red mite. Lemons, Nectarines and Peaches, average. Pears, heavy. Black spot showing. Plums, light.

Manawatu and Wairarapa.—Apples, very heavy. Apricots, above average; Cherries, average; Nectarines and Peaches, fair; Pears, heavy; Plums, heavy.

If weather conditions prove favorable there is every prospect of a heavy fruit crop this season.

Nelson.—Apples, good clean crop; it demonstrates the possibilities of careful spraying, even in a wet spring. Apricots, average. Nectarines and Peaches, moderate; Pears, light. Black spot prevalent. Plums, light.

Nelson Central.—Apples, medium; Delicious shed heavily (only 50 per cent. crop expected); Dunn's, medium; Jonathan, heavy; Cox's, Good; Sturmers, medium. Black spot developed badly on Sturmer.

Present Indications.—Apples 25 per cent. heavier than last season. Brown Beetle caused much damage. Apricots, light; Pears, much lighter than anticipated.

Motenka.—Apples, medium; Dunn's blossom dropped; Sturmers, heavy; other varieties good. Black spot bad. Bronze Beetle harmful. Apricots and Nectarines, fair. Brown rot much less than formerly. Peaches, average, brown rot taking many. Pears, average, black spot bad, especially on Williams. Plums, patchy.

Marlborough.—Apples, full average. powdery mildew very prevalent. Apricots, very light. Nectarines, below average. Leaf curl much in evidence. Peaches, very light crop. Leaf curl has been very prevalent. Pears, fair to light, not up to earlier expectations. Plums, rather light; (Japs.), average.

Canterbury.—Apples, heavy. Lemons, good. Nectarines, average. Peaches, medium. A good deal of curl. Pears, some varieties have dropped heavily, and a good deal of spot. Plums, most varieties good.

Otago.—Apples, average. Powdery mildew prevalent. Apricots, heavy, especially Roxburgh Reds. Nectarines and Peaches, heavy; Pears, heavy; Pear leaf blister mite prevalent. Plums, average.

Nelson.

A correspondent writing from Nelson, New Zealand, states (24/11/22):—

The principal fruit grown in Waimea, County Nelson, New Zealand, is Apples. About 7,000 acres are in commercial orchards. The principal varieties are Sturmurs, Jonathan, Delicious, Cox Orange, Dunns, London Pippin, Statesman and Spitzenburg, although many other varieties are grown. The foregoing varieties all do exceedingly well here.

The prospects for the coming season are good. There was a heavy setting. I should say there will be a record crop of Apples in this district this season. The principle difficulty will be to sell them. This locality alone will grow many more Apples this season than New Zealand can consume.

A considerable quantity will be exported to England and some will go to South America.

Last season the crop on the whole was light. I should say there will be more than twice as many Apples this year as last.

We grow most of the fruits that grow in temperate climates, namely Peaches, Apricots, Plums, Nectarines, Cherries, Strawberries, Gooseberries, Raspberries, Currants, Tomatoes, and Cape Gooseberries. All grow well and bear prolifically.

Wellington is the principal market although much fruit is sent further afield, and a large quantity is preserved.

Raspberry, Cape Gooseberry and Tomatoes growing are extensive and profitable industries here.

The stone fruit crop is generally on the light side, owing to rough weather at flowering time.

WESTERN AUSTRALIA

Fruitgrowers in Conference.

Enthusiastic and Successful Functions.

THE ANNUAL CONFERENCE of the Western Australian Fruitgrowers' Association was held at Bridgetown on November 29th and 30th.

The President, Rev. F. Davis, occupied the Chair.

The Conference was a record one in every way; nearly one hundred delegates were present from all parts of the State. All sections of the industry were represented, and it was quite apparent from the spirit of the gathering, as well as by the plans made for the future, that all past differences had been dismissed.

The annual report and balance sheet was presented by the Secretary, Mr. A. S. Lowe, and adopted.

Constitution.—It was decided that members of the Executive must be financial members of the local association.

Railway Matters.—On the motion of Messrs. J. Johnson (Manjimup) and F. Simper (Fremantle) it was decided to request the Government to fit up a railway truck with mineral sponge to test its value in carrying fruit. The Railway Department was also requested to reduce the freight on a single case from 1/2 to 9d., and to reduce the average freight of cases to 56 lbs., if necessary, to strike a separate rate for apples and other classes of fruit.

Export of Fruit.

Overseas Freight.—After a vigorous discussion concerning the importance of the export trade, a resolution was unanimously carried requesting freight to be reduced from 5/- to 3/- per bushel case, and that wires be sent to the Prime Minister and the Tariff Board accordingly.

Inspection Fee.—On the motion of Messrs. Hill (Bridgetown) and Ramage (Perth) it was decided "That this Conference unanimously agree that the proposed inspection fee on export fruit of ½d. per case by the Commonwealth Government is not justifiable, and that we protest strongly against any such charge being made against the fruitgrowers of Australia." [Memo—The proposed ½d. per case fee has been cancelled for the coming season.]

Rough Handling.—A resolution by Messrs. Booth (Mt. Barker) and Mauger (Balingup) was carried, "That the Government be asked to pass an Act or regulation to enforce the more careful handling of export fruit (similar to the Tasmanian regulation) making it an offence to handle fruit roughly; that the Fruit Shippers Committee be asked to impress on all Shipping companies the importance of this resolution, and also that all stevedores be compelled to provide adequate walking planks, so that no fruit cases should be walked on."

Cool Stores at Fremantle.—Conference carried a resolution noting with satisfaction the Government's intention to erect cool stores on the Fremantle Wharf primarily for the storage of export fruit.

Slow Discharge at London.—Conference by resolution protested against the excessive delays in delivery of fruit from the ships' side to the markets in London, and requested the Government to obtain a report from the Agent-General on the matter.

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Advisory Fruit Council.

Mr. G. Wickens reported on the Conference recently held in Melbourne convened by the Minister for Customs. After a lengthy discussion it was decided on the motion of Messrs. Booth (Mt. Barker) and Sparks (Bridgetown) to approve of the formation of a State Advisory Board for Western Australia in accordance with the constitution as laid down by the Minister for Customs (Mr. Rodgers), provided that the State Advisory Board be made up as follows:—

Three representatives from the apple and pear industry; two from the soft fruit industry, including grapes; two for citrus fruits and one for dried fruits: all delegates to be elected by the Western Australian Fruitgrowers in Conference. Delegates were elected as follows:—

Pears and Apples—O. Sparks, A. T. Booth, G. Sharp.

Soft Fruits and Grapes—J. Ramage, J. N. Cox.

Citrus—J. Beecher and J. O'Neil.

Dried Fruits—J. Thomas.

Mr. O. Sparks was elected Chairman of the Advisory Board; Mr. A. S. Lowe, Secretary, pro tem.

In regard to finance for the State Advisory Board, it was decided on the motion of Messrs. Martin (Mt. Barker) and Hester (Bridgetown) to confirm the principle of a compulsory levy on all fruitgrowers, the funds to be collected by the local governing bodies; all moneys so raised not to go into the finances of the State, but to be kept separate.

The Minister for Agriculture (Mr. H. K. Maley), who attended part of the Conference, stated he was willing to assist the State Advisory Board in its initial expenditure, either by way of railway passes for delegates or direct contribution.

Municipal Markets.

The Conference by resolution expressed approval of the Government's action in delaying the passing of the Municipal Markets Bill. While agreeing that new markets were necessary, the producers should be consulted and be represented on the Governing body of the markets.

Local Marketing.—Conference decided to request the Executive to go into the question of prices for local fruit, and if possible to devise a scheme to assist in the obtaining of better prices.

Election of Officers.

Election of office bearers for the ensuing year resulted as follows:—

President—J. McNeil Martin (Mt. Barker).

Vice-President — Rev. F. Davis (Bridgetown).

Executive Committee—Messrs. E. Thomas, T. Skinner, F. Sounness (Mt. Barker); J. Johnson (Mamjimup), — Wheatley (Capel), O. Sparks, A. Cullen (Bridgetown), A. T. Booth (Mt. Barker), Secretary and Treasurer.

Mr. G. Wickens, Government Officer in charge of the Fruit Industry, was elected an Honorary member of the Executive.

Australian Conference of Fruitgrowers.—Mr. G. Wickens gave a report of the Australian Conference of Fruitgrowers held at Adelaide in May last. Mr. Wickens was accorded a vote of thanks for his services to the fruit industry.

A hearty vote of thanks was enthusiastically carried to the President, also to the ladies for providing refreshments.

Smoke Night.

Delegates and visitors to the Conference were entertained at a Complimentary Smoke Social tendered by the Bridgetown Fruitgrowers' Association. There were also in attendance the Minister for Agriculture, Mr. H. K. Maley, who addressed the guests on matters concerning the fruit industry.

Addresses were also given by Messrs. J. H. Smith, M.L.A. (Bridgetown), J. C. Money, M.L.A. (Bunbury), F. E. S. Willmott, M.L.C. (Bridgetown), the Director of Agriculture, Mr. Sutton,

The Chief Inspector of Fruit Industries, Mr. G. Wickens.

The proceedings were very hearty and considerable enthusiasm was aroused.

The Minister for Agriculture, Mr. Maley, subsequently stated to the Press that after looking over the orchards in the Bridgetown district, he was pleased to see them looking so well. He was glad that the State Advisory Board had been formed, and noted that the growers desired to levy a compulsory tax to provide necessary funds. This, he stated, would be dealt with by Cabinet. Whatever action was taken must be uniform with the action of the other States. If power to levy a tax was granted in the case of the Fruit Advisory Board, the Meat Council would request similar power, as would also the Butter Producers in the Eastern States.

* * *

The Western Australian Association is to be congratulated on having such a splendid Conference. Such gatherings do more good than can be readily calculated. By having a strong Association, which is now assured, the industry can speak unitedly and not as units, and can move forward in a larger sphere of usefulness on behalf of the industry in the State.

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Mr. Walter J. Foster Chairman, Commonwealth Canned Fruit-pool Board.

AUSTRALIA AND U.S.A. COMPARED

The future of Australian Canned Fruit Trade

A HOPEFUL VIEW

Interesting Interview with Mr. W. J. Foster

Mr. Walter J. Foster, one of the largest fruitgrowers in Australia, and now chairman of the Federal Canned Fruit Pool, recently returned after an interesting trip through California.

Mr. Foster travelled great distances and inspected most of the canning factories and scores of orchards in various parts of California. At present the American canneries have advantages over the Australian, but in Mr. Foster's opinion, the quality of the Australian fruit is superior. With the Australian industry tided over its present crisis, Australian canned fruit should be able to compete on any market in the world with the Californian product. Details are given later in this article.

Mr. Foster states that practically the whole of the population of California is dependent upon the fruit and canning industries, though the production of oil is becoming increasingly important. The fruit industry is well organised, particularly in regard to citrus and apples. Organisations are now well under way for controlling the crops of peaches and figs. Growers and canners work in harmony. Some canners are largely interested in fruit production; one factory has a peach orchard of 4000 acres.

America has advantages over Australia at the present time through having cheaper cases, cheaper sugar, cheaper and better transport facilities, while the labour position has more quickly adjusted itself. We pay a duty of from 35 to 45 per cent. on timber for our cases. This duty is not rebated when the cases are exported. In this respect alone America has an advantage of 5d. per dozen tins of canned fruit.

In regard to sugar, the full amount of duty paid is rebated on export. Californian factories were obtaining sugar which cost from £13 to £14 per ton after deduction of the rebate.

California produces annually 12,000,000 cases of canned fruit, 80 per cent. of which are consumed in the States, and 20 per cent. exported. The huge home consumption is possible because of the favourable price at which the public could obtain the goods.

America believes in fostering the export trade. Not only is there the rebate of sugar, but concessions are given in freight charges, whilst no income tax is payable on amounts received as income from canned goods exported. Further, the President of the United States has the individual right, without the matter going before Congress, to give the 20 per cent. preferential duty to any country which will give preferential tariff on American canned goods.

Sugar from Hawaii is imported duty free, but 95 per cent. of the sugar importations are from Cuba, the duty being nominally 2 cents per lb., less 20 per cent. preferential tariff. This amount, as stated, is fully rebated when the sugar is exported in canned goods. The enormous home trade in American canned goods is largely on account of the cheapness of sugar. The price is 3d. per lb. for home trade, 2d. per lb. for export. Vast quantities of fruits and vegetables are sent across to the Eastern States by special trains. The fruit is largely sent in refrigerated railway cars.

Mr. Foster recognises the difficulties under which the industry is labouring in Australia. He considers if a wise policy is adopted by the State and Federal Governments, the industry will come through its troubles, and that markets will be found both at home and abroad for all the canned fruit and jam we can produce.

[Memo.—Since the foregoing was written a canned fruit pool has been formed by the Commonwealth Government.]

Wages are adjusted in America by a State Welfare Wages Commission. Representatives of employers and employees meet and mutually adjust conditions and decide on what is a fair policy. In the canning factories, girls employed in the factories have an award under which at least two-thirds of the employees must receive 15 dollars per week. The employees are paid according to results, viz., under what is known as piecework, instead of being paid for the number of hours worked. There is always the incentive of the employees to do their best to secure the highest wages. Girls average 20 dollars per week.

Fruit produced on the best lands in Australia compares quite favourably with fruit produced on similar land in California. Australian fruit, however, in his opinion, was better flavoured and larger in size. If Australia put up a standardised pack and had level conditions with America, as regards wages, cases, sugar, freights, etc., we could compete in any market in the world with them.

New South Wales.

Murrumbidgee Irrigation Areas.

By Our Correspondent.

Leeton Cannery.—The Apricots are ripening rapidly, and the Factory began its season operations on the 11th December.

The canning capacity has been placed at 600 tons, whilst there is a probable surplus of 400 tons.

The two districts of Griffith and Leeton have formed a local pool under the management of representatives of growers and the Irrigation Commission. The commmittee has arranged advantageous contracts with the M.I.A. Co-operative Co., by which all surplus Apricots will be dried and the receipts from both dried and canned Apricots distributed pro rata to suppliers. It is anticipated that in this way higher prices will be obtained for the growers than the amount possible from the Federal pool.

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Prune Growers Association.—Following Californian lines an association was formed at Young to advance the interests of the Prune growers. Leeton and Griffith representatives attended as the Prune is an important fruit on the M.I.A., some 1,200 acres being planted and shortly coming into bearing. Mr. J. Thompson, of Griffith, was elected as a member of the executive council of the association, which now has the support of the majority of the Prune growers of New South Wales.

Wine at Griffith.—Heavy crops of all varieties are in evidence, and to date no untoward happenings have marred the prospect of a successful vintage. At least 1,000 tons are anticipated, many of the Repatriation settlers securing their first returns this year.

Preparations are being made by Messrs. Penfolds Ltd. to greatly enlarge their capacity to enable them to handle increased quantities this season whilst at Yenda Messrs. McWilliams and Sons are building an extensive winery to process the grapes at that end of the area.

Immigration from Italy.—The Irrigation Areas seem to have an attraction for Italians who since the war have been arriving in large numbers. They are mostly of the northern Italian type with agricultural experience, mainly in vineyards. These men are being gradually absorbed, but the supply still continues. The Consuls should make further enquiries into the capacity of the districts before sending these men here in the present wholesale manner.

Coming of the Tractor.—An indication of the growing need for expedition and economy in Orchard working is the purchase by growers both in Leeton and Griffith of tractors of various types of which the Cletrac and the Fordson are the most popular. Contractors are also investing in them, and this season for the first time large quantities of fruit will be hauled to the packing shed by tractor power. A leading orchardist employing a tractor solely for his farm states that in five days of eight hours he was able to cover upwards of 96 acres of cultivation with one man.

Starling Pest.—This menace has been growing greater each year and has culminated this season in a positive plague. Owing to dry conditions in the surrounding districts, starlings in their millions are descending on the orchards and are attacking the fruit as it ripens. Later, as the grapes sweeten enormous damage will be done unless some means are found to combat the pest. The usual scares are proving almost ineffective.

Additional Fruit Farms.—Much interest attached to the recent statement made by Mr. W. M. Hughes on an electioneering visit here recently. He indicated in very definite terms that the Immigration Scheme did not provide for the development of any additional fruit farms, in the near future. In view of the opinion of the settlers on the Murrumbidgee Irrigation Areas that a halt is imperatively necessary if the Fruit Industry is to avoid serious difficulties, this statement was received with considerable applause.

Rains.—Heavy rain fell on the 6th December, about 250 points being recorded. This had the effect of considerably retarding the ripening and improving the size and quality of the Apricots, the crop of which appears likely to prove a record for the Area as a whole.

Report from Kurrajong.

Mr. W. S. Arnold, manager of the Soldiers' Settlement at Kurrajong has forwarded to us the following report drawn up by Mr. H. A. Wood, the local Government Fruit Inspector:—

The general fruit crop prospects, according to present indications, are good in practically all lines.

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Manuring.—For Citrus trees we recommend complete fertilisation mixture; blood and bone manure in late autumn or early winter, with tonic in spring such as Nitrate of Soda or Potash.

Cultivation. — Plough thoroughly early winter, apply harrows early spring, and during the summer cultivation frequently, and harrow where practicable. Applications of cultivator or harrow should as soon as suitable be applied after rain.

Prunegrowers Organise.

New South Wales Association Formed.

Prunegrowers from Young, Batlow, Leeton, Griffith, Yanco, Koorawatha, and Coolamon, including various soldier settlement met at young, N.S.W., on December 6th., and decided to form a Prunegrowers' Association of New South Wales. There are 2,140 acres of prune trees, from one to four years old, besides 344 acres mostly bearing, at Young and Koorawatha. Last year these yielded about 50 tons of prunes. When the whole area in these parts comes into full bearing, it was stated, this district's output will be considerably more than Australia's entire consumption to-day. The need for an association to regulate the processing, packing, and particularly the marketing, was, therefore, considered to be very evident in growers' interests. The hope was expressed that Victoria and South Australia will form similar associations.

One objective is to try to considerably increase the consumption of prune in this country, and popularising them by putting the best article on the market in the best possible form. Prune d'Agen, Old French, Robe de Sargent, Splendor, Fellenberg, Imperial, and Sugar, are the only seven varieties to be recognised as prunes; all others are classed as plums.

The principle was affirmed of limiting the avenues of distribution so as to maintain better control and fair prices. Members of the association are to be advised to market only through one or two selling agents, to be selected by the association.

The following officers were elected:—President, J. M. Dixon (Koorawatha); executive, N. H. Case (Batlow), John Thompson (Griffith), and John Duprey (Young), Secretary (pro tem), W. H. Hendy, of the Coastal Farmers' Society, Sydney.

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Selected Agents in Sydney.—Mr. F. H. G. Rogers, Fruit Merchant, Sydney, in a recent article to the Tasmanian Press, vigorously defends the present scheme by which the Tasmanian fruitgrowers' organisations send their fruit to certain selected agents in Sydney. Rough handling has been largely reduced and better marketing conditions have followed as a result of the system.

Co-operative Marketing of Bananas.—The manager of the Tweed Fruitgrowers' Co-operative Co. Ltd., Tweed Heads, N.S.W., Mr. E. M. Smith, advises that his company has entered into the selling field on behalf of its supporters. All fruit reaching Sydney after October 16th, consigned to the Company for direct sale will be accordingly by the Company's representative, Mr. John Orr.

Relations with appointed agents are at present unaltered, and fruit may be consigned to the Company for any one of such agents the consignor may prefer.

The Menace of the Starling.

A problem which becomes steadily of greater moment to the farmer is that of reducing the losses caused by starlings. Owing to the absence of natural enemies and to the semi-domestic habits of these birds, they thrive where our own birds disappear. Nor, apparently, is this state of things peculiar to Australia. According to the latest reports from Great Britain, enormous swarms of starlings fly over from the continent of Europe into England and Scotland, and the pest is becoming so serious that at Christmas time nurserymen are unable to collect any Holly, Mistletoe, or other berries on account of these birds eating them all. The birds are also a pest of fruit and some of the grain crops, writes Mr. W. W. Froggatt, N.S.W. Government Entomologist in the "Agricultural Gazette."

The combat with starlings would appear to be essentially a task calling for co-operation among farmers themselves if the effort is to be crowned with success. In the first place all houses should be made starling-proof, for it is in their roofs that the greatest percentage of the starlings is bred. The only other means of dealing with the pest are shooting and poisoning, and whichever of these may be favoured should be carried out on systematic and concentrated lines if it is to have an appreciable effect.

Edward Jacobs & Sons,

Covent Garden Market London (England)

Solicit consignments of Australian Fruits

Tasmanian Representative:

W. D. Peacock & Co. Ltd.

PRINCES WHARF, HOBART

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Fruit Merchants

Established 1882.

A Trial Consignment soli cited from Growers in all States.

Prompt Settlement.

11 WESTERN MARKET

Melbourne

Cardiff as a Market for Australian Produce.

The port of Cardiff is anxious to develop a direct import trade with Australia for all kinds of Australian produce. The commercial potentialities of Cardiff are great. It is the port and market-place for a population of 2,000,000, within 30 miles, and over 10,000,000 within a 90-mile radius. These huge populations are engaged almost entirely in industrial pursuits, and rely very largely upon imported foodstuffs for their sustenance.

Cardiff receives at present direct shipments from Australia by the Federal Line of steamers, and efforts are being made to establish regular sailings with the port.

There is undoubtedly an excellent opportunity here to further develop the Australian exports of apples, oranges, etc.

HULL AS A PORT FOR AUSTRALASIAN FRUIT.

THE NECESSITY FOR DEVELOPING new markets for our exportable fruit is a matter to which Australasian growers and exporters have given considerable thought and attention.

It is, therefore, of particular importance and value that the claims of Hull as a port for Australasian fruit and produce, are being emphatically pressed.

Hull is a well equipped port on the East Coast of England; having harbor and dock facilities which are very extensive and quite up-to-date.

Thus ships can be speedily unloaded and the facilities are present for careful and rapid distribution of the fruit, not only into the town of Hull itself, but also to the surrounding places, for it must be remembered that Hull serves a population of over 12,000,000 people.

It will be quite obvious that by consigning fruit to Hull, the buyers in that locality are better served than if they had to bring the fruit over the rails from other places.

Growers who shipped to Hull last season were well pleased with the prices received, and the indications are that a steadily increasing quantity will be going forward regularly each season.

The proportion of Australasian fruit which is sent to Hull is very small as compared with the total quantity of fruit which that port receives. Responsible authorities state that the present quantity of Australian and New Zealand fruit for Hull could be increased tenfold.

Besides the importance of Hull in serving such a large industrial population in the Midlands and North of England, there are continental markets to be considered.

Hull is regularly visited by fruit buyers from all parts of Europe; thus competition is keen and good prices are realised. The port of Hull is so situated that it is in the most convenient position for re-export to the continent, consequently buyers can operate with freedom, because of the first-class shipping facilities which are so readily available.

In the last issue of "The Fruit World" we published on page 442 the figures giving Hull's enormous trade in fruit. Readers are referred to that article for details.

A point to be remembered is that the fruit trade from other places to Hull is steadily increasing, and Hull is thus taking its place of importance in connection with fruit distribution in Great Britain. Australia and New Zealand must not lag behind in maintaining and developing its trade with Hull, but instead our Australasian exports to Hull must proportionately increase.

Growers desiring to ship to Hull are advised to make early application for space.

Hull is an important central port.

Hull serves a population of 12,000,000 people.

More than double the population of Australia.

Unloading Australian fruit at Hull, England.

GROWERS

TAKE NOTICE

That the best prices realised last season for Australian Apples were obtained in **HULL**, growers receiving splendid returns for all consignments entrusted to our care.

WHY? Because in addition to having an inland population of approximately 13 millions to draw upon, there is also in HULL an immense demand from buyers who are purchasing for export to the Continent.

Arrangements are now being made for direct shipments from Melbourne next season. This **HULL** space will be limited, therefore growers are strongly advised to book their requirements early with our representatives

Messrs. PARNHAM PTY. LTD.

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Victoria.

VICTORIAN FRUITGROWERS' CENTRAL ASSOCIATION.

The monthly meeting of the Victorian Fruitgrowers' Central Association was held at Melbourne on December 12th, 1922. Mr. J. W. Bailey, Vice-President, was in the Chair. There were also present Messrs. Mair, Thiele, Aird, Tully, Hatfield, Lang, Grant, Vear, Foster, Aspinall, and the Secretary, F. H. Burbury.

Apologies for absence were received from Messrs. James (President) Henderson and Jordan.

New Affiliation.—The Peninsula Co-operative Fruitgrowers' Assn. Ltd. (Hastings and Somerville) was elected to membership at a fee of £2/2/-, which entitles the Company to two delegates.

Reduced Plantings.—A copy of resolution from the Northern Victorian Fruitgrowers' Association protesting against the planting of additional fruit trees under Government assistance was received. No action taken.

Next Convention.—Decided to hold the next Annual Convention at Frankston, commencing 1st May.

Fruitgrowers' Machinery. — The Secretary reported that an amendment of the Shops and Factories Act was hurriedly projected in the Victorian Parliament. This included drastic provisions affecting the man on the land generally re safety appliances for all classes of machinery. The Employers' Federation, working in with the Country Party deleted the unworkable clause.

Advertising Campaign.—Mr. Lang reported that the Railway Department was actively assisting the "Eat More Fruit" Compaign. Artistic posters, 40 x 25, had been printed and displayed on every railway station in Victoria. 3,000 copies had cost £205, but additional copies were now available at £40 per thousand. Decided on the motion of Messrs. Lang and Hatfield to purchase a thousand copies for distribution in fruit shops, country towns, and other places. The several affiliated associations to be requested to purchase copies or contribute to the cost of them.

State Advisory Board.—The Secretary reported that in answer to the Association's protest against the appointment to the State Advisory Board, a mere letter of acknowledgement was received from the Department. Decided on the motion of Messrs. Lang and Foster to write again asking what action the Minister intended to take in the matter.

Superintendent of Horticulture.—Decided to ask the Minister to submit the names of applicants to a sub-Committee. A sub-Committee was elected as follows:—Messrs. Lang, Foster, Aird, Tully and Jordan.

Pear Shipments.—It was decided to request the Fruit Exporters' Handling Committee to arrange for two or more boats under "Somerset" conditions during the coming season. It was reported that the experimental chambers on the "Bay" liners would be available again for the coming season for shipping Plums in February.

Melbourne-Brisbane Fruit Trade.—A discussion took place on the desirability of forming a Company to supervise the despatch of fruit from Victoria to Sydney and Brisbane on the lines as conducted by the Southern Queensland Fruitgrowers' Society Ltd. Mr. Mair (Tyabb) considered full train loads to Brisbane would glut that limited market. It was stated the scheme would embrace Sydney as well as Brisbane. No action was taken.

A conference was subsequently held with delegates from the Fruit Exporters' Handling Committee.

PRACTICAL ORCHARD WORK.

Mr. H. H. Hatfield's Experience.

Mr. H. H. Hatfield, an experienced fruitgrower of Box Hill, Victoria, gives the benefit of his experience as follows:—

(1) **General orchard work for January.**

J. G. Mumford
Est. 1906
Fruit Merchant
Fruit and Vegetables sold for growers from all States.
Account sales posted daily.
Exporter.
Exporter of fruit to English and Continental markets.
449-451 Flinders Lane, Fruit Exchange, Melb.
Reference: Satisfied growers in all states.

Keep the cultivator at work and make the land as fine as you can, kill all growing weeds so as to keep all the moisture down to the roots of the trees. Do not work the land too deeply in summer, three to four inches is deep enough, for if you work it too deeply, you draw the moisture away from the roots.

(2) Apples and Pears should be sprayed for Codlin moth once at least in December—strength 1 in 20, well forced on the trees, best Arsenate of Lead to be used. For Woolly Aphis, use 30lb. tobacco refuse soaked for 48 hours in 80 gallons water, add 2 lbs. washing soda. (Put soda in with tobacco to draw out the nicotine.) This should be well forced on the trees, sprayed upwards. This is the best summer remedy for this pest.

My apples are clean and show very little signs of moth so far. Up to date, we have sprayed the pears three times for moth and the apples twice. We will spray the apples once more for moth before the end of the year and again in January.

(3). My crop is not heavy—

Jonathan, Yates, Statesman, Romes apples, fair to good. The latter were heavy last year. Dunns, Esopus, light. No Rymers (heavy last year).

William Pears set heavily, but have thinned out to fair. Keiffer, W. Cole, W. Nelis, B. Bosc and others, light; late Peaches, light.

(4) **Re Summer Pruning.**—One time I used to summer prune fairly heavily, but I am convinced after years of watching that in this district heavy summer pruning is not a good plan.

For Jonathan apples up to 8 years after planting, leave as many laterals as you can that point to the centre of the tree and also those that point out. If you have enough of these, cut out all that go straight up unless you want them for main limbs or leaders; cut out all cross laterals that would interfere with spraying or picking; do not cut any leaders in the summer. This thinning out should be finished by the middle of January. Treat Rome Beauty the same way. In Romes, it frequently happens that too many laterals appear, growing from 5 inches to 18 inches before they develop any full buds that may become fruit buds. I would cut back to within an inch of the base, that is if they have the sign of a bud there.

(5) **Re Interplanting.**—There are many that do not believe that interplanting is required. I am a strong believer in it. I have proved it to my satisfaction in Jonathans and Romes, also in Londons. I would advise anyone planting Jonathan apples to have a row of either Yates or Rokewoods within, say, 80 feet from extreme rows.

(6) **Re distance apart for trees.**—This depends on richness of soil. Poor soils 17 feet is a good distance apart and some very rich soil 30 feet is not too much. Headlands 20 feet wide give plenty of room for turning, but if land is cheap and they have plenty of room, say 25 feet.

I advise spraying for scale and aphis to start at bottom of tree and point nozzle upwards and be sure to have a high pressure and miss no part. This is very essential if you want to be successful.

Mr. J. H. Lang, Harcourt (Vic.), writes (12/12/22), re practical orchard work for January as follows:—

(a) **Spraying for Codlin moth** with Arsenate of Lead, 5 lbs. to 100 gals. will be done in this district the first or second week in the month, making for most growers the fourth spray for this pest, though with some it will be the fifth. Owing to favourable season the Codlin is more in evidence this year than last.

(b) **Irrigation** as may be necessary; usually two applications of about 50,000

gals. per acre, and breaking up soil with spring-tooth cultivator after each watering.

(c) Harvesting Apricots, Plums and early picking of Williams Pears.

(d) Supporting branches of heavily laden trees with props, or wires. Where wires are used it is best fastened to the tree by a screw ring.

There is very little Black Spot this season, and Woolly Aphis seems well under control.

Crop prospects continue as per report in December Fruit World.

Summer pruning:—I confine this to thinning out unnecssary wood in young trees and prefer to do it during November and December, as full vigour of the tree is then thrown into remaining growths.

Thinning of crop is not much practised in this district. During Winter pruning the fruit spurs are thinned out.

Interplanting varieties.—This is very neccssary.

Planting distances and headlands.—The usual distance after many experiments is now 20 feet with 20 feet headland. In rich soil trees should be planted further apart as bigger trees will result, and conversely on poorer soil less may be allowed.

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Woorinen (Vic.).

Principally vines (Sultanas, Gordos, Currants) grown hereabouts; good crop showing for the coming season. Swan Hill is the nearest big town. Settlers are keen and enthusiastic. An advisory board has been formed to confer with Irrigation Commission. The Progress Association is doing good work; the president is Mr. H. Goodman; secretary, Mr. A. Kavanagh.

The Woorinen Fruitgrowers' Association has purchased the packing shed, stemmer and grader equipment, etc., which was erected by the Nyah Co-operative Co. The Association has affiliated with the A.D.F.A.

Developments at Nyah.—Mr. A. R. Lawrence, Nyah, Vic., writes:—Prices realised this season for Oranges have been the lowest experienced, while Lemons have not been worth picking.

In the township several new business buildings are in the course of erection, and new people are arriving every week, which speaks well for the faith investors place in the district.

The amusement side is also being well catered for, the Nyah Public Hall trustees are commencing to build a new hall, with open air picture theatre, containing skating floor attached, which will be the envy of the Northern districts.

Tyabb Fruitgrowers Protest.

At the last meeting of the Tyabb growers, extreme dissatisfaction was expressed at the manner in which certain co-operative bodies were interfering with the work of the Central Fruitgrowers' Association. Several instances were cited, and the local delegate to the Council was instructed to advocate a more forceful policy for the Central Association.

Reference also was made to certain high-handed appointments by Mr. Pennington, Assistant Minister for Agriculture, to the State Fruit Council. A motion of protest was unanimously carried.

Successful Cool Storage.—Cool storage of fruit is a proceeding about which there is always a great deal to learn. Mr. J. D. Grant is one of the most successful cool storers of the Tyabb Co-operative Cool Store Co. His advice gets at the root of the matter.

"Grow hardy fruit," he says, "and you will have a 99 per cent. success. Grow apples to 2½ ins. with as little cultivation as possible. Make full use of the off year for cultivation, strip digging, etc. He suggested that to carry this out thoroughly a certain section of the orchard shall be reserved for cool store fruit each year and treated accordingly. Above all," he emphasised, "allow the fruit to ripen before picking, and in picking handle most carefully."

Primary Producers Advances Act.—An amendment has been passed in the Victorian Legislative Assembly giving the Government power to alienate portion of land, held as security for loan (as for instance where a cool store is erected) for the purpose of providing housing accommodation for employees (as say, an engineer), on the latter a loan can be raised privately or through a bank.

IMPORTATION OF PEAR SEEDS.

Pyrus usuriensis to be Admitted.

A decision of far-reaching importance was arrived at when a deputation from the Victorian Association of Nurserymen and Seedsmen waited on Dr. Cumpston, Federal Director for Quarantine, on December 12th, requesting that the seeds of Pyrus usuriensis be admitted. There were present at the interview:—Messrs. G. W. Peart (President), C. Nobelius, R. E. Boardman (Hon. Secretary); also Mr. E. E. Meeking, Chief Inspector.

Dr. Cumpston was assured on the highest authority that the seed was immune from Pear Blight (Amylovorous bacillus). After an interesting discussion, he agreed that it should be allowed to be imported if grown under quarantine in the nurseries concerned for 12 months. This condition was readily agreed to by the nurserymen concerned.

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F. W. J. MOORE, Managing Director
Telegrams: Tirralirra London
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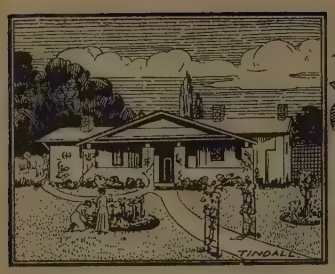

BEAUTIFYING THE ORCHARD HOMESTEAD

Old Fashioned Flowers.

JUST NOW, some of our "old fashioned" flowers are giving gay patches in the garden. **Antirrhinums**, commonly known as **Snapdragons**, are quite gay with their many colours. Now that these are easily obtained in separate colours, and in great variety, it is possible to work out fine colour schemes with them.

As soon as the first central flower is well out on the plant, it should be cut off, and not allowed to seed. Then the plant will stool out, and shortly produce a fine crown of blooms; and it will also spread out and cover a big space.

Gardeners do not usually know that Snapdragons are quite easily raised from cuttings, by breaking off the smaller side shoots and inserting them in ordinary sandy soil. This method ensures that any particular strain or shade may be perpetuated. These cuttings may be struck at almost any time of the year, except in winter.

Then there is the old hardy **Portulacca**. This is an excellent plant for setting out in sunny and in dry situations. Its gay coloured flowers, of many colours too, give a real Turkish carpet effect in the garden. It is a good scheme to sow the seed in all the bare patches of the garden. The plants soon cover over the soil, and are gay for many weeks. It is not yet too late to transplant the young Portulacca plants.

Wallflowers are again popular, and as winter flowers, they are hardly excelled. Those who love these fragrant flowers, should even now get ready for sowing the seed for next Winter's flowering. For, before these notes are prepared for next month's issue, it will be time to sow the seed. "Isn't it rather early?" some friends will ask. I always prefer to get the seed of **Wallflower, Pansy, Stock, Iceland Poppy, Sweet Pea** and **other winter** flowers planted early. We thus get strong and big plants, which flower early and long.

Larkspurs are generally very fine this season. I have seen large bunches on the carts and trays of the flower sellers, of lovely and delicate shades. They are so easily grown; but, like many another annual, sadly neglected.

Dahlia Notes.

GARDENERS WHO LOVE DAHLIAS are all on the qui vive just at this time. For this is the planting time. Many Dahlia enthusiasts spend their holidays between Christmas and New Year in planting out their Dahlias. For those folk who go away for the holidays, the planting should be done at once. It is well to get the plants started into growth, before going away.

There are the two types of plants, those small plants in pots, which have been struck from cuttings, and those which are grown direct from the tubers. Big tuber clumps should not be planted whole, but should be cut up, so that an eye, or at most two, should be on each tuber piece.

If the weather comes out hot, the plants which have been struck from cuttings, should be sheltered for a week or two with small pieces of shrubs or trees.

The plants should not be forced into early and quick growth by over-feeding and watering. Rather, they should be allowed to make good root growth first. Then, when well into February, their rapid growth may be encouraged, for they have the root system to sustain them.

It is a good plan to drive stakes in before planting, as Dahlias always need support. Heavy winds come in March and April, and if the top heavy plants are not tied to stakes, they break off easily.

I have been asked to give the names of a few good Pæony Dahlias: these are, perhaps, the best types to give a gay and strong effect in the garden. Some of the best are as follow:—Agnes B. Cock, dark maroon; Allan Dougall, creamy white; C. S. Hood, scarlet magenta; Dr. Peary, deep velvet crimson; Geisha, yellow and scarlet; Liberty, scarlet; Mrs. W. Egan, pure white; Mrs. Frank Fleming, rich amber brown; Miss Gwen. Eddison, heliotrope or mauve pink; Miss Sophy Savory, rich yellow; Mrs. W. P. Chalmers, light pink; Moonshine, yellow; Mrs. Stanley James, old gold; Sylvia, old gold and apricot.

Some Flowering Shrubs.

It is well to note these when they are in flower. Better judgment may be formed as to their colour and growth, in relation to the other plants in the garden. This is an important point, and yet one frequently overlooked. The **Erythrinas or Coral Plants** are flowering now. Some are very gorgeous; some can always be relied on to give fine spikes of bloom at Christmas. The rarest of them is the most gaudy—**E. acanthocarpa**, the Tambookie Thorn: it is a fine shrub, but hard to propagate, and hence scarce.

Feijoa Sellowiana is flowering now. It is one of the most marked shrubs that we have. It comes from Brazil. The small-sized flowers have four petals which are rolled inwardly, being of a fleshy white. There are many long stamens, which are rich crimson in colour. It is not generally known that the petals are used for garnishing and decorating fruit salads. They are very sweet and succulent. Later, when the small fruits come, they are very aromatic and delicious.

Strelitzia reginæ that queer yet stately flower from Africa, is now in bloom. It grows from a crown, with hard stems and stiff foliage. The gorgeous flowers are called the bird flower, on account of their upright orange petals, which look like a bird's crest, and the long blue protruding tongue, which gives a strong contrast to the orange of the petals.

What to do in the Garden.

Little planting or sowing is done at this time of the year, except it be the setting out of plants from pots, on shady or cloudy days. Then these should be set out with as little disturbance of the roots as possible, and well watered after planting.

Weeding, hoeing and watering are the all-important works. Hoeing the day after a good watering will help to conserve the moisture. Summer weeds, are growing very rapidly, and need checking.

Palms, Bamboos, New Zealand Flax, Pampas Grass, Gum and Wattle trees are all right into their growing season, and they should be kept well watered. Indeed, many garden shrubs are now in full growth, and they should be encouraged by water and cultivation to continue their growth.

Daffodils, Hyacinth, Tulip, Watsonia, Muscari, and all bulbs now dormant may be lifted and stored away. The last planting of Gladioli corms should be completed before the end of the year. These will flower in Autumn. Gladioli plants that have flowered in Summer, should be allowed to slowly dry off.

Answers to Queries.

Pear Pollination. Eradicating Paspalum.

"Q" Leeton, N.S.W., asks—

(1) Is the Packham's Triumph pear supposed to blossom at the same time as the Williams?

(2) Is there any way of eradicating Paspalum dilatatum from head ditches on irrigation farms.

Answer (by Geo. W. Peart, Bairnsdale, Vic.)—

(1) Packham's Triumph blossoms just a little bit ahead of the Williams, but the two varieties are close enough together to be of assistance in cross fertilisation.

(2) Paspalum dilatatum cannot be eradicated except by intense working, and, therefore, the head ditches will eventually be given right over to the Paspalum.

Answer by F. H. Brunning Pty. Ltd., Melbourne, Victoria.

The eradicating Paspalum from head ditches on irrigation farms is a most difficult proposition, and on that account we recommend the farmers in the irrigation areas not to use Paspalum in their mixtures.

Two disadvantages of the plant are its tendency to spread on to ground where it is not wanted, and its excessive root development, which in time, mats the ground to such an extent that the grass is eventually choked and dies off. The former can easily be overcome by laying down only a limited area of Paspalum dilatatum, and keeping it in check by sowing the nearby portions of the holding with other fodder crops, which require constant cultivation. Maize, Sudan Grass or one of the Sorghums would be valuable in this respect, especially as the cultivation of these crops is carried out during the principal season of growth of the Paspalum.

We mention this matter of checking spreading of Paspalum, although when the plant is established actually in the channel, it is most difficult to keep the seed from being washed down by the water. The only chance is to graze the plants excessively, so as not to allow it to mature seed, and to impair their vitality just as much as is possible.

Referring to the excessive root development of the plant it is quite possible that after years the pasture will go off, and will not respond satisfactorily to a top dressing with fertiliser. At this stage, it will require renewing, and the best method is to plow and sow the ground down in perennial Ryegrass, Cocksfoot and mixed Clovers.

This mixture will give good results for a certain period, and until the Paspalum again takes possession, or the old Paspalum may be broken up by double disc ploughing twice, three inches deep the first time and deeper the second, following this by harrowing and cross harrowing. By this means the roots are sufficiently broken to rejuvenate the pasture after which a top dressing with Superphosphate, and a resowing of Clover seed can be made.

We mention this to show the necessity for keeping Paspalum within bounds, and also for the information of your clients.

Grafting Peaches and Apricots.

"J.N.," Pomonal, Victoria, writes: "I have some I.X.L. almond trees, which blossom early, and do not bear well. I would be glad to know if it is possible to graft peaches and apricots on these trees."

Answer (by Mr. C. G. Savage).—Peaches and apricots may be worked on to almond stocks. Budding gives better results than grafting with peach, apricot and almond trees. Almond stocks are not the best stocks for stone-fruit trees, except in dry areas, where trees are grown to produce fruit for household use and not for commercial purposes.

Mixing Manures.—"K", Leeton, New South Wales, asks—Would Gypsum and Superphosphate or Gypsum and Potash used at the same time have the effect of killing each other.

Answer (by S. G. Savage, Deputy Horticultural Instructor, South Australia).—Superphosphate contains principally monocalcium phosphate and calcium sulphate or gypsum. It is made

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by treating phosphate rock, containing tri-calcium phosphate, with such an amount of sulphuric acid as is required to combine with two out of the three lime radicles in the molecule; a mixture is obtained of gypsum and of soluble mono-calcium phosphate. From this one can gather that the mixing of gypsum and superphosphate is quite safe.

Gypsum and Sulphate of Potash may be safely mixed and applied together. Gypsum, like lime, aids in making available dormant potassium compounds that may be contained in the soil.

Queensland.

The staff of the Fruit Branch of Agricultural Department received a welcome addition on the 1st December, in Mr. J. M. Ward, as Chief Instructor. Mr. Ward's varied experience and enthusiasm will be much appreciated by the growers, particularly of temperate fruits, whose grievances, real and imaginary are legion. Further changes will probably follow in the personnel and allocation of staff, as other districts are enquiring. the basis of Toowoomba's claim (where production and planting are infinitismal), for the entire monopoly of the services of an assistant Instructor.

"Bunchy Top" Bananas.—The southern banana trouble "bunchy top" has advanced another stage. Resultant upon a recent deputation to the Minister joint investigation is now being conducted by Dr. Darnell Smith (N.S.W.), and Mr. Henry Tryon (Qld.).

Rain and Hail.—Irregular rains have improved the prospects in many districts, though in parts of the granite belt storms were accompanied by heavy hail, resulting in serious damage to the trees in addition to their denudation of fruit and foliage. As a set off to the beneficial influences of rain in citrus areas, orange bugs have been present in large numbers and taken a heavy toll in young fruit.

Pineapple problems.—Pineapple growers are now concerned regarding a pool for the summer crop for which a ballot is in progress. The price for canning fruit is not altogether alluring, being a reduction of about 12 per cent. on previous years. Except in most favoured locations the grower is not, on account of over production, in an enviable position. In the **Beerburrum soldiers'** settlement, devoted solely to pineapples, a very large area is under crop. Unfortunately there is little if anything to commend the locality, the selection of which, for such a purpose, suggests an entire absence of the faculty of perception, on account of the poverty of the soil the necessity for heavy fertilising obviates the possibility of production at a profit.

One would imagine that the State contained sufficient available fertile areas to meet the special requirements of soldiers' settlements, but indications are to the contrary.

The annual report of the Department of Agriculture and Stock contains most scathing reference by the Agricultural Chemist to another closely settled similar area, ostensibly intended for fruit production. Ultimate success in either instance is impossible, for with the exception of bananas and a few practically unconsidered tropical fruits the State is already faced with over-production, which means that "poor" places must go under.

The expansion, except in respect to bananas, for the year ending 30th June, 1922, is practically nil. Politicians are wont to parade the necessity for further land settlement oblivious to the fact that in the absence of corresponding increase in population the possibilities offering for expansion in perishable products are negligible.

Federal Canned Fruit Pool.

Pineapples 2/8½ per Case.

Queensland canners have decided to operate under the Commonwealth Fruit Pool at a reduction of 30 per cent. on last year's prices. Last season, Pineapple growers received 3/- per case; this season the price has been reduced by 10 per cent., making the price 2/8½ at the sending station. The pool is advancing 90 per cent. of these prices.

At a recent meeting of the United Fruitgrowers' Association, Glasshouse Mountains (Queensland), it was stated the local summer crop of Pineapples would be about 25,000 cases, 15,000 of which would be from returned soldiers. A suggestion was made that the Government should make up the difference between 2/8½ per case (pool price) and 4/- (the average price) to the returned soldiers.

Mr. L. Crook was re-elected chairman; Mr. L. Vinnicombe, hon. secretary; committee, Messrs. E. Nattrass, C. G. Holloway and R. Myrphy.

Mr. Vinnicombe was elected to the Pool Board.

Agents' Commission.—At a recent meeting of the Council of Agriculture, held at the Queensland Producers' Association offices, a recommendation was adopted from the Fruit Committee noting that the Crown Solicitor is of the opinion that the Commissioner of Prices has the necessary power to fix the Commission charges by agents in the sales of fruit in the Brisbane markets, and that in the circumstances he be requested to investigate the rates of commission being charged by agents with a view to bringing about a reduction in the rates at present ruling.

Appreciation.

A subscriber at Coromandel Valley, South Australia, writes:—"I would like to express my appreciation of 'The Fruit World.' It is of great value to the orchardist. Keep hammering on the sugar question."

The Banana Industry.

Picking, Grading and Packing.

Some Practical Hints of Value.

R. G. Bartlett, N.S.W. Government Assistant Fruit Expert.

AT EVERY CENTRE where Bananas are handled for purposes of transhipment the question of bad packing obtrudes itself. Everywhere are to be found cases that contain immature, or small or diseased, or "boiled" or otherwise damaged fruit, and everywhere, too, cases that have been packed slack or with fruit that has shrunk, leaving a space of an inch or two at the top. The influence of such lines upon the market is far more serious than many will credit, choice fruit and passably good fruit alike suffering in price in the presence of a glut of the poorer stuff, (writes Mr. R. G. Bartlett, N.S.W. Government Assistant Fruit Expert in the Agricultural Gazette of New South Wales.)

This view—that growers are themselves often responsible for the poor prices their produce brings—is generally scouted at the producer's end. That the value of prime fruit should suffer because of an excess of poor fruit is hard to believe, yet the grower who follows up his consignment will find it is too frequently the case. In most cases the trouble lies in the fact that the grower does not see his fruit after it has been cased and despatched from the plantation, and, therefore, has no knowledge of the depreciation that takes place as a result of his faults in packing, and of the damage that may be done during transport to fruit that at the start was perhaps, "not so bad." It is perfectly true that poor prices are often the result of other conditions, but before there can be permanent improvement it has to be recognised that often poor packing is a substantial factor.

Pick at the Correct Stage.—For the successful marketing of bananas, the first thing is to pick the fruit at the proper stage, viz., when there are no "corners" and nothing of the "French bean" character—in other words not long and thin. Mature, well filled fruit only should be picked, and it should be handled with the greatest of care at every stage.

The bunches should be cut early in the morning or late in the afternoon, but not in the heat of the day, and should be immediately removed to the shade. An hour's exposure to the sun, especially in the summer, will do more harm than most growers realise, the more so as the damage done does not show up until after the consignment has been sent away. The bunches should be placed on the shady side of the tree and covered with trash, and

if they have to lie there long enough for the shadow to shift, and no longer protect them, they should be moved so as to be still in the shade. The point is of far greater importance than many growers realise.

As showing the effects of the

Rays of the Sun,

the case may be mentioned of one grower who stacked his fruit where the sun shone through a window in the packing shed, falling on part of the stack of full cases. It took him a while to realise that that stray patch of sunlight accounted for a portion of his consignment reaching the market in a depreciated condition.

So important is this matter of exposure to the sun that, as remarked further down, growers should give attention to it when the cases are stacked on the roadside to await the carter.

It is always wise to allow the fruit to stand on the bunches for, say, twelve hours, in order that some of the moisture may escape, and the bananas become less brittle and liable to marking.

"Handing off"—separating the hands from the stalk—should take place twelve hours before packing, so that **an interval of at least twenty-four hours shall elapse between the cutting of the bunch and the final packing of the fruit.** Care should be taken in cutting the hands off the bunch that as much stem as possible is left on the fingers. This prevents stem-end blackening, and ensures a better flavor in the fruit. As every grower knows, the bananas are better when ripened on the bunch, and when plenty of stalk is left on each hand.

There is not a single grower probably who does not know that no diseased or damaged fruit should be sent to market, but quite a lot of the kind nevertheless reaches Sydney and Melbourne, as a result of a desire to forward everything that is likely to turn to money. If those who are guilty of these practices would only put themselves in the place of the consumer they would quickly realise how they inevitably spoil the demand; no one will run the risk of buying diseased or immature fruit a second time.

Attention may be called to the danger of what is known as "boiled bananas." During the months of January and February many growers have only themselves to blame for their produce showing this character. They think that immature fruit is not so subject to the trouble as the more mature. As a matter of fact the fuller the fruit the more fitted they are for sending away, and the greater the chance of reaching their destination in good condition, allowing, of course, for other adverse circumstances.

Immature bananas should never be sent away at all. Not only do they not carry well, but they do not ripen properly, only coloring and softening on the outside, but having a hard centre core.

Lining the cases with paper can hardly be overvalued, as it prevents undue rubbing of the easily-bruised skins against the sides of the cases. Paper is a non-conductor of heat, and in the summer the paper should be broken along the sides to allow of the ventilation of the cases. In fact, in January and February the paper along the sides may be omitted altogether, only the tops and bottoms being lined.

Hints for Packing Bananas.

In packing, the hands should be broken into three's and four's, and spaces in the cases should be filled in with singles. On a good bottom layer very largely depends the ultimate result of the whole "pack." On no account should spaces be filled with smaller fruit than the average of the case, as that spoils the grade. The case should contain fruit of only one size.

In order to allow for shrinkage in transit, the case should be packed an inch to an inch and a half above the top, the contents curving upwards from the ends so as to be highest at the centre. Nailing down can then be done without the fruit at the ends being bruised.

One end of the case should be raised a couple of inches off the floor, in order to allow of the slight bulge on the bottom. If the tilt of the case is toward the operator, it will be found that the fruit will pack tighter, falling toward the packer. Growers are strongly urged to make or obtain a

Simple Press for Nailing

down the lids, and to abandon the pernicious practice still followed of severely bumping the fruit down.

As long as growers pack an even size of fruit in each case, there should be no necessity to brand the cases "choice," and "extra choice" for the buyer is the keenest grader. Every grower brands his own best as "extra choice" without regard for any specific standard meaning that might attach to the term.

Stacking in the Shade.

Once more must attention be called to the need for sheltering the fruit while it is waiting on the roadside for transport. Sometimes a consignment is allowed to remain for a whole day in the sun, not only to its own serious damage, but to the detriment of other fruit with which it comes in contact, whether in trucks or on board ship. Suitable bush shelters can be erected very inexpensively, and there is no reason why several growers should not combine to erect one for their common use. The small outlay in the way of labor will be amply repaid, especially where the produce is, in other respects, being well graded and handled.

Under no circumstances should cases be stood on their ends or on the bulge during transit, as damage is certain to result. They should always lie on the flat sides. In this respect, of course, it is impossible to follow the consignment through its many handlings, but the effect of continual care and of correct handling at the grower's end, together with a steady cultivation of the idea that the fruit is a delicate product that requires proper handling, will ultimately ensure that the product reaches the consumer in prime condition.

If associated with all this there is the steady regard for the grower's own good name and the honesty of his pack a reputation can be gradually built up that will enable the best prices to be obtained at all times.

"MANURIAL EXPERIMENT ON STRAWBERRIES."

Last season a test was made on the manuring of **Strawberries** with quick acting fertilizers by Mr. C. W. Sinclair, of "Mansfield," Beaumont, Otago, New Zealand, which demonstrated clearly what big profits can be obtained from their use.

The test was carried out on three uniform plots, each one-twentieth acre in area, of the "Laxton's Noble" variety of Strawberries that had been planted in March of the previous year.

Plot 1.—Was manured with Superphosphate at the rate of 5 cwt. per acre, which was hoed in in the early Spring.

Plot 2.—Was left unmanured as a check.

Plot 3.—Was manured with Superphosphate in just the same way and at the same time as No. 1 plot, but was also given—Nitrate of Soda at the rate of 2 cwt. per acre. This was applied later as a top-dressing when the plants were commencing to flower.

A careful record of the yields from the different plots was kept when the crop was gathered in December, 1921, and the figures obtained calculated to the acre-basis as given below with their values at the ruling market price of 1/- per pound.

Plot 1. Super 5 cwt. per acre .. .. 1540 lb. 77 0 0

Plot 2. No manure, check plot .. .. 940 lb. 47 0 0

Plot 3. Super 5 cwt. per acre Nitrate of Soda 2 cwt. per acre .. .. 2140 lb. 107 0 0

Thus from the combined use of Superphosphate and Nitrate of Soda as applied to Plot 3, an increase of 1,200 pounds per acre, valued at £60, was obtained; it is worth noting that this means an increase of 127 per cent., the yield being considerably more than double that of the unmanured plot.

Taking in Boarders.

Boarder (on leaving): Madam, you are one of the most honest persons I have ever met.

Landlady: I am glad to hear you say so, sir.

"Yes, your honesty is remarkable. On your sign you say, 'Boarders taken in!'"

Poultry Notes.

Conducted by Ian Hamilton.

Now that the wheat harvest is at hand it is a good time to arrange for next season's straw and cocky chaff. Later on it may not be available.

Do not neglect to supply plenty of shell, charcoal and quartzite grit. All are necessary.

Cull vigorously at this season of the year. It is the sure road to success.

There is still time to plant out silver beet in well-worked good soil. It is a most useful green feed and from a good crop heavy cuttings can frequently be made. The leaves of well grown silver beet are of great size and yet tender and brittle, and have a great value as a source of mineral salts. The plants should be 18 inches apart, in rows 2 feet apart, so that the ground can be frequently cultivated and irrigated. It is better to have a small bed of beet well cultivated and heavily watered than a large area half attended to and starved for water.

Rape, mustard, berseem and lucerne should also be grown, as all are useful for feeding to poultry. Lucerne and legumes are especially valuable for their mineral content. Remember it is necessary to supply variety in green foods as well as in other diet.

The egg pool in New South Wales has not only stabilised the market, but has saved the growers £50,000 that would have been lost on an unregulated market. A similar scheme for regulating the Victorian market is in hand, and the Victorian Egg Producers' Federation hope to have the scheme in full swing in the Spring of 1923.

The use of chaffed green foods in the mash will be found to considerably lessen the feeding bill at a time when the prices of bran and pollard are soaring.

During the summer months when eggs are plentiful many housewives are busy putting surplus supplies in preserve. If good results are to attend their efforts it is well that they should carefully test the shells of all eggs, being careful to put in no cracked or weak-shelled ones. The eggs should be preserved when perfectly fresh and should be first cleaned with a damp rag. See that the eggs are well covered to allow for evaporation of portion of the liquid during the time they are stored. Keep the tins in a cool place.

In killing birds for the table they should always be bled. Dislocating the neck is the cause of the dark flesh.

Remember that impure water has probably more to do with an outbreak of diarrhoea or cholera than anything else. Fresh, clean, and cool water must be available to poultry if the best results are to be secured.

Yards in which fowls have been running for a long period need spelling. It is a good plan to dig the soil up once a year.

During the warm weather the perches should be painted at least once a fortnight, and in fact once a month throughout the remainder of the year, with a strong disinfective solution such as kerosene and phenyle.

There is a vast difference between a layer and a breeder. With the laying pullet it is a large number of eggs that you require and you feed to produce them—but in the case of breeders it is the fertile egg that you are after—the egg that will contain the germ from which a strong chicken will come. These breeders must have wholesome foods, but not stimulating foods that will force them to lay. Do not allow them to become fat, but see that they get plenty of exercise and green stuff.

Plenty of shade is essential to the welfare of young ducklings. Without it heavy losses may result as they cannot stand too much sunshine.

The time has now arrived with most breeders when their cockerels and pullets should be separated. With light breeds it is essential that this should be done at an early age, in fact by the time they reach three months or as soon as the cockerels commence to crow. The heavy breeds may be separated any time before they are five months old. Both cockerels and pullets will be found to benefit from the separation and a noticeable improvement in their growth will be apparent.

BEE KEEPING NOTES.

IT PAYS TO KEEP the hives well painted. A coat annually will preserve any well-constructed hives for a number of years.

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We supply the highest quality Scientifically prepared for the land and gives the best results.

Put up in bags, also in sealed tins to keep fresh for use in Bordeaux and other mixtures.

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Growers have no need to prepay sea freight by shipping through Stephen McCormick, forwarding agent, Sydney.

Inquiries regarding N.Z. market will be gladly answered.

Address correspondence: **P.O. Box 665, Auckland.**

CABLES: "RADLEY AUCKLAND."

BANKERS: Bank of New South Wales.

A worker bee lives six months, a drone four months, and a female bee, four years.

Newly-hived swarms should be gently fed for a few days until they have built out their combs and accumulated a little food. Without this attention the bees may starve should bad weather set in.

Always look for a sheltered position for your hives—one with a good windbreak.

Weather has a great deal to do with the successful manipulation of bees, and hives should not be opened on cold and unfavourable days.

The whole secret of handling bees may be summed up in the one word—gentleness. Rough treatment never subjugated bees and never will. Calmness with quiet movement is what is required.

Various formations can be adopted for arranging hives, but where possible they should be placed at least nine feet apart. In dealing with one hive the beekeeper does not then encroach on the range of flight of an adjoining hive.

Be careful when introducing new bees that they are perfectly healthy.

The acquisition of a swarm is about the safest way of starting bee-culture because of their being unlikely to transmit foul brood.

Never try to winter weak lots of "driven" bees.

Bees require a certain amount of water and if natural supplies are not close at hand it is as well to provide for a supply. Shallow open pans may be used, and if a few small pieces of wood or cork are put in the water to act as floats they will serve as alighting places for the bees and prevent their being drowned.

Occasionally, swarms, after being safely hived, will abscond within the first few days. To prevent this it is a good plan to place a frame of unsealed brood from another colony with them. Bees rarely desert young brood.

Too much attention cannot be given to the important subject of queen raising. It is a fact that the best strains of bees have pedigrees and valuable stock queens are even named in some cases.

Hive roofs should be secured against strong winds, and by far the best method of doing this is to drive a stout peg about eighteen inches long, into the ground at one side of the hive. To this attach a strong cord which should be carried over the roof and one or two bricks attached to the other end so that they are suspended about six inches from the ground. It is almost impossible for a hive roof secured in this manner to blow off.

A CORRECTION.

Toomuc Valley Orchard.—We regret a misprint in our December issue on page 431 dealing with spraying notes and the Toomuc Valley Orchard, Pakenham (Vic.). The word "sorted" was mis-spelled "soaked." The sentence should read—"The Yates are sorted before going into store."

COOKSLEY & Co.

(W. P. Cooksley)

Reliable Fruit Agents

23 Years' Experience

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QUEENSLAND

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WANTED TO SELL

Columbia Disc Harrow

16 Discs, 20 inches, Double Wheel Forecarriage, in good order, £25.

Apply Disc, "Fruit World" Office.

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Vessels Sail from Port Melbourne as under:—

T.S.S.	"HOBSON'S BAY"	13,850 tons	R. M. Heddle	10th Jan. 1923
„	"ESPERANCE BAY"	13,850 „	R. MacKenzie	7th Feb. 1923
„	"MORETON BAY"	13,850 „	J. Mason	7th Mar. 1923
„	"JERVIS BAY"	13,850 „	W. R. Chaplin	4th April 1923
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TASMANIA

Crops Prospects—Freight Reduction Imperative—Experimental Shipments of Plums and Pears—Orchard Notes for January.

(By our Special Correspondent.)

The apple crop prospects now show that on the whole the trees have made a rather patchy setting, particularly in the Derwent Valley and Bagdad districts. **Pears** are also showing a generally light crop, as are also certain varieties of **plums.** The weather has been generally dry during the past month and rain is badly needed in some districts. A good soaking would be welcomed, especially by the small fruit grower.

Experimental Shipments by Bay Steamers.—Another attempt is to be made this coming season to make a successful shipment of plums to England. The Commonwealth Government Line has placed certain of its experimental chambers aboard the "Bay" steamers at the disposal of growers. If a boat can be secured at the proper time, a consignment made up of trays of the varieties of **plums** that gave the best results last season will go forward. It is also proposed to experiment with certain varieties of pears.

Overseas Freights.—In spite of the assurance of the Assistant Manager of the Commonwealth Line of Steamers that he recognised the parlous position of fruitgrowers generally, and the necessity of fruit being carried this season at a reasonable cost; we hear that the London manager still sticks at the exorbitant rate of 5/- per case. Growers are more than "up against it" after the results of previous years, and unless freights are lowered at least a shilling under this figure a **very small amount of fruit will be exported, and a lot of orchards will be either abandoned or neglected.**

A deputation of returned soldier orchardists, headed by Sir John Gellibrand, met the Prime Minister (Mr. Hughes) on his visit to Tasmania, and put the urgency of their case before him, but did not gain much satisfaction. At the same time **no reply has been received to the fruitgrowers request that they be apprised of the actual cost per case on shipments by the Commonwealth Line last season.**

Fruit Marketing and Packing Sheds.—A number of new packing sheds are being erected this year in certain districts. The Speyton Co-operative Orchardists' Association is building a shed at Latrobe, and others are in course of construction at Lalla (Mr. F. Walker) and West Bay.

The fruit packing classes for school children, which have proved such a success are to be continued, and a number of new centres have made application for a course of instruction. It is to be hoped that the Government, in its economies will not limit the carrying out of this useful work.

At the last meeting of the State Fruit Advisory Board a proposal was put forward in regard to an advertising campaign, which would be put into operation just before and during the time our fruit reached the English markets. The need of some action in this respect has repeatedly been emphasised by different growers and others that have visited the markets. Advertising carried out in the right lines more than recoups the outlay.

Cherry Aphis.—This year has been remarkable for the amount of infestation amongst cherries of this pest. Trees have been literally smothered with the aphids and a lot of damage to crops has resulted. Hitherto the pest has never proved so troublesome and has only occurred in isolated cases. The fruitgrower has come to look upon the cherry as immune from most diseases and pests and has taken no preventive measures. The pest was allowed to make good headway before it was noted and action taken.

Boats for Oriental Trade.—During the visit of the Prime Minister a deputation consisting of Senator Bakhap, Messrs. Laird Smith, M.H.R., N. Campbell, M.H.A., W. G. Andrewartha and L. A. Evans (Secretary for Agriculture) waited upon him in respect to a trial shipment of fruit to the East by one of the Commonwealth liners. Mr. Hughes promised to afford facilities in this respect if at all possible.

Orchard Notes.—Cultivation should be the keynote of the month. Keep the surface tilth loose and do not allow a crust to form, especially after a fall of rain.

Thin any varieties of apples or pears that are bearing too heavily, especially varieties that are apt to be on the small side, such as Crofton, Yates, Scarlets, etc.

Spray as necessary for pear slug with arsenate of lead. Partial defoliation is no good for a tree. The leaves act in the same capacity as your lungs do for you.

Keep a good look out for late broods of Codlin Moth. Pick and destroy all grubby apples and spray with arsenate of lead if later infestations are occurring.

Trees attacked with Powdery mildew may be treated with their second or third application of Atomic Sulphur or Iron Sulphide.

Attend to picking cases and mend any that are sprung. Case timber should be on hand and stacked ready for drying and making up. Make sure of your paper and wood-wool, etc., by ordering same to be on hand for first shipments.

How's Business With You?—One of the nation's wits answered that question by the following:—"'Business is dull,' remarked the scissors grinder; 'Looking up,' said the astronomer; 'Dead,' sand the undertaker; 'Fine,' remarked the judge; 'Looking better,' said the beauty doctor; 'Fair,' said the street car conductor; 'Rotten,' said the egg man; 'Pretty soft,' said the mattress maker; 'Light,' said the gas man; 'Hard to beat,' said the bass drummer; 'Looking brighter,' said the boot-black."

But no matter what is said in a humourous vein, a farm implement publication settles the whole question for everyone in this comment:—"'Business is like a wheelbarrow; it stands still until someones pushes it.'' Isn't that a fact? ("The California Citograph.")

Mr. C. E. Howship, who has been appointed Australian agent for Messrs. Swann and Co., fruit importers, London, arrived in Australia from Great Britain this month.

Dehydration in Tasmania.—A dehydration plant for dealing with Apricots and Prunes has been erected at Bridgewater, Tasmania, by the Tasmanian Dehydration Pty. Ltd., a co-operative company of growers, the managing director of which is Capt. Newman.

This company has affiliated with the Australian Dried Fruits Association.

This co-operative company is also handling manures and orchard requisites. The dehydration plant which was erected by Mr. D. J. Latham, Engineer, of Queen Street, Melbourne, is now in operation, and has a capacity of three tons of fresh fruit per day. It is probable that a larger plant will shortly be installed.

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New Market, Adelaide, S.A.

All kinds of Fruits sent to all parts of the World.

Noted for perfect packed fruits.

A Trial order Solicited

Protection for Raisers of New Varieties

Successful American Methods.

FOR MANY YEARS discussions have raged about the necessity for patent rights or similar protection being available for raisers of new varieties.

The incentive for hybridists and plant breeders to produce new varieties is largely taken away owing to the fact that after the introduction of such new variety it can be propagated freely by all and sundry, leaving the producer with nothing more tangible than the credit of having produced it. And even this credit is often times stolen from the raisers, through the name of the new variety being altered, and sold under two or more names.

The following is a copy of the agreement drawn up by the well known Nursery firm of Stark Bros., Louisiana, Mo, United States of America, re their "Golden Delicious" apple:—

Golden Delicious Purchase Agreement. No Golden Delicious Trees will be Shipped Unless this Agreement is Signed by Purchaser.

The following agreement, between the undersigned and Stark Bros.' Nurseries and Orchards Co., of Louisiana, Mo., refers to the purchase of Golden Delicious apple trees by the undersigned. Owing to the great expense of the wide-spread testing and investigation of this valuable apple and the great cost of its introduction, Stark Bros. are protecting themselves as well as the public from the imposition and substitution often practised by unscrupulous dealers. This is intended to prevent fakers from misbranding and marketing inferior yellow apples as genuine Golden Delicious. Furthermore, it is to enable the purchaser of genuine Golden Delicious to furnish . . . . . Golden Delicious trees to reap the reward of the high price of Golden Delicious apples on fruit markets without having the damaging influence of bogus so-called Golden Delicious. Thus the reputation for long keeping, high quality and big profits of the Golden Delicious apple will be maintained and protected by the co-operation between Stark Bros. and the purchasers of all Golden Delicious trees. Therefore, in consideration of the agreement of the undersigned **not to give away or sell or permit anyone else to take any scions. buds or cuttings from the Golden Delicious trees herein mentioned or their progeny or any other Golden Delicious trees that may be furnished** to the undersigned in the future by Stark Bros. Nursery and Orchard Co., for a period of 25 years after any such trees are so furnished and the further consideration of . . . . . Stark Bros. Nursery and Orchard Co., agrees furnish . . . . Golden Delicious trees to the undersigned.

Date 19

. . . . . .

Purchaser to sign here

Purchaser's Address.

The foregoing will give food for thought to Australian and New Zealand fruitgrowers and nurseryman.

ORANGE SHIPMENTS TO HOLLAND.

The Algemeene Fruit Co., Amsterdam, Holland, report having sold (11/8/22) West Australian oranges, transhipped from England, 21s. 8d.; South Australian, 26s. 8d. In a letter dated 12/10/22, South Australian oranges (96, 112, 126) realised 27s. 2d. to 29s. per case.

Speaking of future prospects, they state:—"We are exclusively importing here Spanish oranges from November until May or June. During the summer months the market is practically bare of oranges. We think a good trade could be done with Australian oranges, as the first to date has met with a ready sale."

This year the circumstances have not been particularly favourable for importing oranges from other countries than Spain, as the Spanish crop has lasted very long and, contrary to other years, the fruit has kept well. We are also having an enormous apple and pear crop, which has much influence on prices for imported fruit.

As a rule we have a big crop every other year, so that next year there will probably be a lack of fruit, hence a good market for imported fruit. The prospects in Spain are that there will not be a big crop of oranges this season, so that shipments to here will most likely be finished before June, perhaps beginning of May.

Ship Your Oranges, Lemons, Grapes to New Zealand

All consignments for this market will have careful attention and realize highest prices if sent to

The Co-Operative Fruitgrowers of Otago Limited, Dunedin

Personal supervision of every consignment.

Cheques posted promptly.

Drop us a Line or Cable "Peachbloom," Dunedin.

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LATHAM DEHYDRATORS

Right up-to date——
——and a day ahead

FIRST in Australia
FIRST in the Murray Valley
FIRST and only, in the "California of Australia," Mildura District
FIRST in South Africa

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COMPLETE LEMON PROCESSING PLANTS

Expert Information re methods

DRIED FRUIT GRADERS

DRIED FRUIT BOXING PRESSES

"CESTRIAN" FRESH FRUIT GRADERS

APPLE SLICING MACHINES
(*Hand or Power*)

Belting, Pulleys, Shafting Bearings, Engines and Boilers, Cranes & Hoists, Piping, Thermometers, Trucks, Conveyors, Fruit Trays etc.

D. J. Latham
157 Queen Street,
MELBOURNE
AUSTRALIA

HOME MAKING and UPKEEP

(By "Nymphae.")

CARE WITH CHILDREN'S FOOD.

"Eat as much uncooked food as possible," is a maxim which if displayed and carried out in every home would do much towards bringing about what all parents desire for their children—namely, the attainment of such perfect health, fine physique and brain power as is possible for them to attain.

I truly and firmly believe that much of the illness, stunted ability, etc., through which many adults suffer is directly traceable to improper food, and especially to the food they received when infants and young children. Therefore, it behoves parents to be absolutely certain that their young folk are receiving all the benefits that are their absolute right.

Included with proper feeding are other important items such as fresh air always, perfect cleanliness, plenty of sleep at regular intervals, and regular habits. Without these, other equally important items much of the benefits of proper feeding would be lost, but it is on the subject of food that I wish to express my views.

If one starts at the very commencement of a child's life to inculcate these principles the child naturally learns what to expect and does expect it; thus much of the trouble of bringing up children in the way they should go, is non-existent.

Now-a-days, it is ever so much easier for parents to learn about all things appertaining to children and their ways, than it was 20, or even 10, years ago. There is so much sound literature regarding such subjects published, that one has only to pursue with intelligent interest and the knowledge is to be had.

Civilized people as a whole eat too much cooked food—food which can be eaten raw. Of course, it is necessary to cook vegetables and meat, but there are many other fresh articles of diet which should be included on the menu. Fruit is so often cooked when it can be eaten raw, and it is on comparatively few tables that one regularly comes across such articles as dates, sultanas, nuts, lettuce, fresh pure milk (instead of tea, coffee or cocoa) egg-flips, junket, etc., some of which are considered luxuries, when they are in truth essentially necessary to the insistent demands of the growing child.

From the children's menu exclude all pastry, cakes, etc., even if they are home-made, for the chemicals contained in the flour are highly injurious to young people. In place serve sandwiches of brown bread filled with such delectable things as lettuce and cheese, lettuce and chopped nut, date, sultanas and nuts, etc. Some of these things are expensive, but as most of us eat too much meat, they can be substituted for meat; and the money that will be saved from the doctor will eventually render it most economical.

One of the most important items of diet is brown bread. White bread has truly been called "the beautiful white devil." It contains injurious chemicals to make it rise, and to make it white, the most nutritious part of the wheat is extracted. Brown bread contains the whole of the wheat and is one of the most staple items of diet for the child and indeed every one else.

There are doctors who have not given much thought to the question, and who will say that white bread is good enough. Only the very best is good enough for my children.

Another important item is milk. It must be, oh, so pure and it can't be too fresh. It is the main food for young children, and yet how many are lost through an impure milk supply! No matter how dear it is, milk is the cheapest of food.

Boiled milk loses more than half its goodness, therefore, try to vary the meal that there will not be too much boiled milk pudding, custard, blanc mange, etc. Instead of custard I give my children egg-flip, which they love. Junket also helps one out of the difficulty.

Of course, it is sometimes necessary to have boiled milk puddings, but when that occurs see to it that there are other articles of the uncooked variety.

Lollies do no good—children will learn to love sultanas much better. I mention sultanas as being seedless.

Keep the diet as simple and as wholesome as possible and the children will flourish. They must get the habit of chewing their food thoroughly and thus preserve the teeth. "Prevention is better than cure." How true this is yet how comparatively few of us realize it. We don't know that a true diet will ward off most of the ailments to which we take it for granted children are subject. It is all in the food, and the way we manage the child.

USEFUL HINTS.

Leather Furniture.—To preserve and clean leather furniture, prepare a mixture of vinegar and linseed oil, using one part vinegar to two parts oil. About once a month apply this mixture to the leather part of furniture in order to preserve its appearance. Use very little, rubbing it on with a soft cloth; then polish with a silk duster. If the leather is stained it may be cleaned with white liquid shoe-cream, or with equal proportions of melted soap and paraffin oil mixed together. Apply sparingly with soft muslin and polish with a silk duster.

Book Covers.—Leather book covers may be cleaned with equal quantities of milk and white of egg mixed together. Apply with a piece of soft flannel or cotton-wool, and polish with an old piece of silk. If there is a sign of mould on leather bindings rub them with a little oil of lavender. This will remove the mould and prevent more forming.

To make tough meat tender.—Mix a little oil and vinegar together in the proportion of one part vinegar to two parts oil. Put the meat on a dish; pour the oil and vinegar over, and stand for several hours, basting occasionally.

THE KITCHEN.

Lemon Syrup.—Dissolve 2 lbs. white sugar and 2 cups cold water; let it boil 2 minutes, then add the juice of 4 lemons, and ½ oz. tartaric acid. After it has cooled somewhat, add ½ teaspoon lemon essence. Bottle when quite cold.

Orange Syrup.—Select fine ripe oranges, extract the juice and to each pint add 1 lb. sugar; boil gently 10 minutes, skim, and bottle when cold.

Oatmeal Biscuits.—¼ lb. flour, ¼ lb. oatmeal, ¼lb. brown sugar, ¼ lb. dripping or butter, 1 small egg, a pinch of salt, a pinch of baking powder, flavoring, a little milk or water.

Put all the dry ingredients into a basin, and rub in the fat until free from lumps. Beat up the egg and add it to the mixture along with enough milk or water to form all into one lump. Work the paste until smooth, and roll out on a floured board. Cut into biscuits and bake on a greased tin in a moderate oven until crisp and brown, from 20 to 30 minutes. Cool on a sieve or wire tray.

SPRAY MATERIALS

Of QUALITY and PROVED EFFICIENCY, including

Arsenate of Lead in paste and powder forms.

ATOMIC SULPHUR

Recommended by the Department of Agriculture, New South Wales, for the control of

Powdery Mildew on Apples

and PROVED IN VICTORIA to be capable of controlling

Brown Rot on Peaches

And Other Stone Fruits.

ATOMIC SULPHUR is the greatest boon ever offered to Fruitgrowers.

Agents wanted throughout Victoria.

SOLE AGENTS FOR VICTORIA

Buckeye Harvester Co.

44 to 52 Francis Street,
MELBOURNE (Vic.)
Opposite Spencer Street Railway Station

"As busy as Western Market"

H. Louey Pang

& CO. Pty. Ltd.

Fruit, Produce and Commission Agents

172-176 Lit. Bourke St., Melbourne
(*Also at Victoria Market*)
P.O. Box—No. 795 Melbourne

Buying and Selling Fruit and Produce at this locality is as busy in the mornings as Western Market.

Good Prices Assured.

Cheques sent daily—immediately the consignment is sold.

References—London Bank, Swanston St., Melbourne. *'Phone—Central 10,506*

SUBSCRIBERS' PAYMENTS RECEIVED.

The following are the subscriptions received from November 20th to December 18th, 1922. The month quoted in parenthesis indicates to what date the subscription is paid. These are exclusive of the subscribers who have paid to our local agents and to our offices in the various States:—Abbott Bros. (Aug. 23), J. Aird (Oct. 23), Geo. Arbuckle (Jly. 23), W. R. Archibald (Nov. 23), J. W. Aspinall (Aug. 23), S. J. Barnes (Sep. 23), E. Bechervaise (Nov. 23), S. H. Bradley (Apl. 23), J. Burton (Oct. 23), T. Connor (Sept. 23), R. W. Cook (Dec. 22), R. Crawford (Aug. 23), A. Cullen (Oct. 23), J. Davidson (Dec. 23), Rev. F. Davis (Aug. 23), H. E. D'Esterre (Nov. 26), Deale Bros. (May 23), Deppeler Bros. (Oct. 23), A. Elliott (Nov. 23), Elliott Bros. Ltd. (Oct. 23), F. R. Finn, junr. (Nov. 25), T. Flemming (Jan. 23), J. Fuller (Oct. 23), J. M. Garlick (Nov. 23), T. Gaudion (Oct. 23), C. W. Giles (Nov. 23), S. H. Green (Aug. 23), E. A. Haines (Aug. 23), H. H. Hatfield (Dec. 23), A. E. Herring (Nov. 25), G. W. Hester and Sons (Aug. 23), A. D. C. Hetherington (Aug. 23), F. W. Hoffman (Nov. 23), R. R. Hurst (Nov. 23), A. Kieselbach (Jan. 23), R. Kilpatrick (Aug. 23), W. Littlefield (Sept. 23), A. S. Lowe (Aug. 23), H. W. Lunt (Aug. 22), G. J. Mackay (June 23), Mercantile and Warehouse Co. Inc. (Aug. 23), Moore Bros. (July 23), J. Morgan (Oct. 23), A. McKee (Aug. 23), E. Naughton (Nov. 23), C. A. Nobelius and Sons (April 23), C. P. Nobelius (Nov. 23), C. H. Ozanne (Aug. 23), J. O'Connell (Sept. 23), H. Piggott (Sept. 23), J. Pipes (Oct. 22), S. Plush (Mar. 24), E. Pratt (Nov. 22), H. Prosser (July 23), W. J. Rees (Oct. 23), R. Richmond (July 23), J. D. Rock (June 23), Rosella Pres. and Mnfg. Co. Ltd. (Dec. 22), G. Sharp (Mar. 24), Sir T. Smart, M.L.A. (South Africa), June 23), H. W. Smith (Nov. 23), Miss M. Smith (Nov. 23), T. V. Tamean (Nov. 23), Tambourine Mtns. Frgrs.' Assn. (Sept. 23), W. Toyer (Sept. 23), G. G. Turri and Co. (Dec. 23), F. J. Tuckfield Pty. Ltd. (Nov. 23), Two Bays Nurseries (Nov. 23), P. G. Wescombe (Nov. 23), H. Wills and Co. Ltd. (Nov. 23), G. Wilson (Aug. 23), A. Woodlands (Oct. 23).

WE BUY LEMONS

Green Citrons and Shaddocks, Seedling Oranges, Tomatoes, Cherries for crystallising, Loganberries, Raspberries and Strawberries, Passion Fruit.

C. M. BROOKE & SON
Whiteman Street, South Melbourne, Vic

H. C. AUSTIN

Wholesale Fruit Merchant

FRUIT & PRODUCE EXCHANGE
ADELAIDE, S.A.

Importer and Exporter

(30 years' experience fruit trade)

Solicits a Trial Shipment, especially Bananas, Pines and Passion

An assured outlet. Highest ruling prices.

Correspondence Invited.

BANKERS: E.S. & A., Rundle Street, Adelaide.
"Telegrams" Austin, Adelaide.

SHIP TO AUCKLAND, N.Z.

Consign to the Up-to-date and Established Firm of

TURNERS & GROWERS

— LTD. —

City Markets, Auckland New Zealand

Salerooms comprise—
55,000 ft. of FLOOR SPACE, including
FRUIT COOL STORAGE ON PREMISES

Staff of nearly 100 Employees

Competent Salesmen only employed

DIRECTORS:
H. Turner — J. Greenwood
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P. Turner — S. W. House

HIGHEST PRICES
PROMPT RETURNS

CABLE ADDRESS: "Cantab"
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BANKERS: Bank of New South Wales, AUCKLAND

DON'T PLANT FRUIT TREES until you have seen the

PLANTERS' GUIDE

Containing Valuable Information for intending Fruit Tree Planters
Post Free to any address. Send now to the

Balhannah Deciduous Nurseries, Balhannah, South Australia

For your copy.

These nurseries are devoted exclusively to the propagation of Highest Grade Deciduous Fruit Trees, and can offer prime trees in all the leading commercial varieties. Inquiries solicited. Business established over a quarter of a century.

H. N. WICKS, Proprietor

THE MARKET FOR PASSION FRUIT PULP.

Passion fruit pulp is a commodity for which there seems to be a growing demand, both in America and London. A considerable quantity of pulp was sent to America last year—about £10,000 worth. This was forwarded in wooden casks, a certain proportion of sugar being added and the whole shipped at a low temperature direct. The price paid by the purchaser, it is understood, varied according to the quality from 1/3 to 9d. per pound, and as 2½ lbs. of passion fruit will make a pint of pulp, the prices may be considered satisfactory.

The N.S.W. Department of Agriculture has carried out a considerable amount of work in connection with the best method of putting up the pulp, the method favored being to pulp in cans and subject these to a heating process. It has been ascertained that to bring the pulp to a temperature of 190 degrees Fahr., in a period of twenty minutes results in a very excellent article; but there is every reason to believe that the temperature can be reduced without any lengthening of the time, and further investigations under this and other headings are at present in progress.—A. S. Hogg, Asistant Fruit Expert, in New South Wales Agricultural Gazette.

A London Enquiry.

Cable advices from London (14/12/22) state that in consequence of the popularity of Passion Fruit, which has been created by the sale of Australian produce at the Cafe Savoy, a broker has sent an inquiry to Australia for 1,000 cases of bottled pulp.

Don't get down-hearted because you happen to make a mistake. Every time a smart man makes a mistake he learns something.

ESTABLISHED 1819

JAMES ADAM, SON & CO.

Fruit Auctioneers and Brokers

1 TEMPLE COURT

LIVERPOOL ——— ENGLAND

Consignees' Brand 361

Pioneer Brokers of Tasmanian Apples in Liverpool.

Special Catalogues showing prices issued after each sale.

Representatives

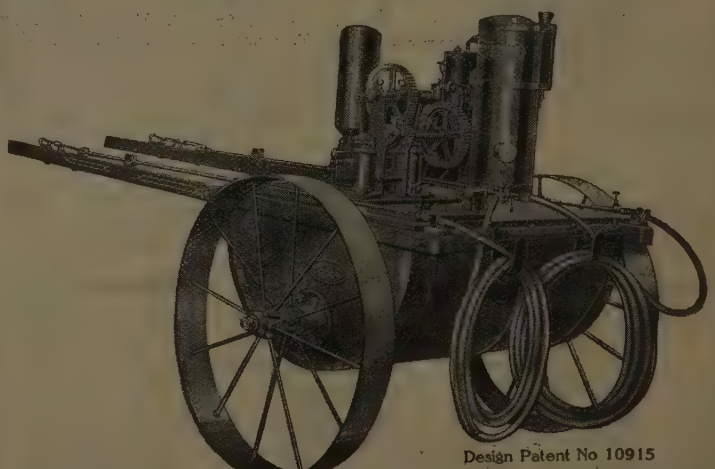
C. PIESSE & CO., Hobart, Tasmania

ORCHARDISTS!!

Your Conception of the Perfect Spray Plant has Materialised in the "Cooper" Perfect Balance

It possesses just the advantages that you look for. The equipment is highly efficient, and the strength, balance, and ease of operation leave nothing to be desired. The broad wheels ensure easy pulling over soft soil and the patented Balancing Design lightens work for the horses. When you think of the loss caused by orchard pests and the time and labour spent in combating them you will realise that a Spray Plant like this fills a long-felt need.

Let us send you further particulars.



Design Patent No 10915

COOPER

Engineering Co. Ltd.

129 SUSSEX ST., SYDNEY

350-358 SPENCER ST., W. MELBOURNE

Clark & Fauset Ltd., Brisbane; New Zealand Loan & M.A. Co. Ltd., Hughenden, Rockhampton, and Townsville; Australasian Imp. & H.F. Co., Adelaide; Harris Scarfe Ltd., Perth; J. A. Semple & Co., Launceston, H. C. Heathorn and Co., Hobart, Tasmania.

MANCHESTER AS A PORT FOR AUSTRALIAN PRODUCE.

Permanent Australasian Representative Appointed.

Our advertising columns call attention to the claims made by the Port of Manchester that it is a favourable distributing centre for fruit and all kinds of Australasian Produce.

Captain Wm. J. Wade, M.B.E., who has been appointed representative for Australasia of the Manchester Ship Canal Co., with headquarters in Sydney, has open an office at No. 8, Bridge Street, in that city; he will work actively in connection with the further development of direct trade by steamer to and from Australia and New Zealand, and the port of Manchester, where there is an almost unlimited field for the consumption and distribution of products of all kinds.

Captain Wade is desirous of invigorating and extending this particular trade, and he believes that one of the most effective means of attaining this end, is to have goods transported through the most direct channels from the producer to the consumer in the United Kingdom; as a former officer and commander in the trade between British ports and Australia, he is well acquainted with most of the principal ports of Australia, and is familiar with the conditions of sea transport of all classes of Australian and New Zealand produce.

For upwards of 15 years, until immediately prior to his departure from England, Captain Wade occupied the position of General Superintendent of the Municipal Markets Department in the city of Manchester, and in that capacity had supervision of the municipal abattoirs, cold stores, wholesale meat, poultry, fruit and produce markets, and fruit auction rooms, in which imported fruit, etc., is sold; he thus has an unrivalled knowledge of the marketing and distributing facilities of the Port of Manchester, and of the city and districts surrounding it.

For many years Captain Wade has taken a keen interest in all matters pertaining to cold storage and refrigeration, and until his resignation on leaving England, occupied the position of president of the National Cold Stores Association for a period of five years, and during the war served at the Ministry of Food as assistant director of cold storage and inland transport of food, in which capacity he took a leading part in organising the cold storage facilities of Great Britain on a national basis.

He believes that his practical knowledge of the conditions applicable to the shipment and transport of all classes of Australasian produce, including such as is subject to conservation by refrigeration, combined with first-hand experience of the marketing and distributing facilities of the port and city of Manchester, should prove of considerable assistance to producers, shippers, and others, who are interested in the possibilities of saving transport and other charges, by establishing or extending the direct trade between Australasia and the manufacturers and consumers in the densely populated area which the port of Manchester serves.

Captain Wade, who will visit all the principal centres of Australia and New Zealand from time to time, expects to be in Melbourne during the first two weeks in January. He will be most happy to answer enquiries or arrange interviews with those who are interested in the export trade and desirous of further information regarding the possibilities of direct trade with Manchester.

Export of Fruit to Great Britain.

Messrs. Bender and Co., of Elizabeth-street, Launceston, Tasmania, forward us a change of copy for their advertisement, but to late for inclusion in this issue. This firm, which has been established over 30 years as shipping agents, fruit exporters, cool storage proprietors, etc., announces that they have been appointed representatives in Northern Tasmania for the following English fruit brokers: W. Dennis and Sons Ltd., London; J. C. Houghton and Co. Liverpool; J. Lindsay and Sons Ltd., Glasgow; J. Seed and Sons, Hull; and the North of England Fruit Brokers, Manchester.

Sow One of BRUNNING'S FB *Sow One of* BRUNNING'S

ANNUAL WINTER MIXTURES

Brunning's Annual Winter Fodder Crop Mixtures are better known as Four-Purpose Crops, on account of the four purposes for which they can be used as follows:—

1. They give winter fodder that can either be cut and fed or grazed.
2. As the cutting kills the weeds these mixtures are valuable for cleansing the land.
3. In each of these mixtures a fair proportion of some legume is included, so that the crop can be ploughed in for green manure, thus adding humus to the soil.
4. These mixtures, even when not ploughed under, improve the soil as regards available nitrogen for succeeding crops.

Write for complete leaflet containing details of tested mixtures. Post free on application.

Leading Suppliers of

Hunter River Lucerne, "Mesgawi" Berseem Clover, Sweet Clover, Dwarf Essex Rape, Field Peas, Golden Tares, Tick Beans, and all other Farm and Orchard Seeds.

BRUNNINGS

PRICES ON APPLICATION

F. H. Brunning Pty. Ltd.
64 Elizabeth Street
Melbourne

The Smyrna Fig

The Editor, "Fruit World."

Sir,—There is an interesting account of a 12,000 acre Fig orchard in your December number, at the conclusion of which it is stated that the Calimyrna Fig is "A Californian improvement on the Smyrna Fig." This is an error, for it is merely a trade name for the original Smyrna Lop or commercial drying Fig.

Geo. C. Roeding, the introducer of the Figs into California, gives an account in his book on the Fig, how the name Calimyrna was given to the Lop Fig to distinguish it from the numerous other varieties of Smyrna Figs, none of which are so good for drying, and he adds, "The name Calimyrna has been copyrighted with a view of giving protection, not only to this brand of dried Figs, but to the trees as well."

Years ago, I imported from Mr. Roeding, a number of the varieties he recommends, the Calimyrna has proved to be identical with the Smyrna drying Fig (Lop Injik of Turkey), which with our large fruited Caprifig was imported into South Australia some 40 years ago by our Chamber of Manufacturers.

Fig planting is being extensively carried out in South Australia by soldier settlers, and my stock of young trees was soon exhausted, and during the past Winter I have sent away many thousands of cuttings, besides those I am growing in a nursery bed for next planting season.

Mr. Roeding recommends his No. 1, 2 and 3 Caprifigs as being the best to plant. I have discarded No. 1 and No. 2 as being inferior to what we have. No. 3 is the best early variety; it also carries crops for the Fig wasp throughout the year, then follows the "Large Fruited," imported with the Lop Fig many years ago by our Chamber of Manufacturers, and for a late variety I have a very large fruited Caprifig I raised from seed produced by artificial fertilization when experimenting before I succeeded after several years of failure in introducing the Blastophaga Wasp to Australia.

Yours, etc.,

(Sgd.) THOS B. ROBSON.

Hectorville, Sth. Aus.

15/12/22.

Dehydration.—Mr. Geo. Vincent, M.I. H.V.E., heating and ventilating engineer, "Invincible" Fan Works, Darlinghurst, Sydney, New South Wales, directs attention to the "Invincible" Dehydrator designed and constructed by him at Leeton, Murrumbidgee Irrigation Areas, New South Wales. Mr. Vincent has developed a sterilising and dehydrating plant, which has been standarised, and can be manufactured in several sizes, large or small, to suit particular needs. Correspondence is invited.

A PIONEER PASSES.

Mr. William Bailey of Narre Warren, Victoria.

Mr. William Bailey passed away on the 29th December, at his residence, "Bona Vista, Narre Warren, Vic., at the age of 82 years. Mr. Bailey arrived in Victoria 60 years ago from Harrow, England, where he was born, and engaged with his father in fruitgrowing.

For some years he assisted his cousin the late John Cole in the Richmond Nurseries, and afterwards established the Malvern Nurseries, which he carried on until his property was divided by the construction of the Glen Iris Railway line.

Mr. Bailey took an active interest in the public life of Malvern, being a Shire Councillor. He was also a life member of the Royal Horticultural Society of Victoria.

Thirty years ago he established the first commercial orchard at Narre Warren, two of his sons have followed in his footsteps and are leading orchardists in this district, one of whom—Mr. J. W. Bailey—is a member of the Executive of the Central Fruitgrowers' Association.

The deceased leaves a widow and grown up family of five sons and four daughters.

IS IT A STOMACH COUGH?

If your cough is a chest cough, this does not interest you. But if it is due to stomach disorder, and is accompanied by a furred tongue, phlegm in the throat and a general feeling of "goneness," it is time you took a dose of A.M.S. This herbal extract is a wonder-worker, and a positive cure for Indigestion and Liver troubles. A few drops after every meal is keeping thousands in perfect health, and buoyant spirits. A.M.S. costs 3/- the bottle, by Post 3/6, and can be procured from all chemists or country stores, or direct from T. A. Dickson, Chemist, Geelong. Victoria.

FOR SALE.

Bushel Fruit Cases

New, all Pine, Pine Ends, or all Hardwood

PRICES ON APPLICATION

O.T. Ltd.

CASE WORKS

Port Melbourne, Vic.

Manchester!

WHY?

BECAUSE it is the centre of the most densely populated area in Great Britain, and there is a demand for your fruit throughout that area.

BECAUSE it is the natural source of supply for 177 cities and towns with a population of over nine millions.

BECAUSE your fruit is discharged direct into railway waggons or road conveyances, and thus avoids second handling, and is despatched to all parts of England.

BECAUSE a trial shipment will convince you that you are in the right market and that you are getting the best possible results for your year's working.

For full particulars write to-day to—

N. V. WADE,

c/o ROYAL EXCHANGE,

SYDNEY, N.S.W.

Australasian and Southern Tasmanian Representative of

The North of England Fruit Brokers Ltd.

Manchester, England

New Zealand.

Last season, New Zealand exported 114,000 cases of Apples. In the coming season, it is expected this quantity will be doubled.

A determined effort is being made to re-open the South American market. Fruit can be sent there without cool storage and the trade there desires Apples larger than is wanted in London.

The New Zealand Fruitgrowers' Federation will join in a combined advertising campaign to "boost" Australian and New Zealand fruit in the United Kingdom.

It is hoped to get direct boats to Hull, a market which New Zealanders appreciate.

Mr. T. W. Attwood, president of the New Zealand Fruitgrowers' Federation, will proceed to England this month to acquire first hand information re the English markets, and on the way back will endeavour to investigate the possibilities of the South American market.

The New Zealand Government has in past years guaranteed that the fruit exported will net the growers 1d. per lb. net at the packing shed free of all charges.

The New Zealand Fruitgrowers' Federation Ltd. distributes its export fruit among a limited number of approved distributors.

The Lightning Fruit Grader

(Patent applied for)

Pronounced by Orchardists and Experts to be the "last word" in Fruit Grading Machines

THE MACHINE THAT ATTRACTED THE CROWDS AT THE RECENT SHOWS

GRADES FRUIT LIKE LIGHTNING

Grades Oranges, Peaches, Apples, Pears, Lemons and all other Fruit accurately. Perfectly simple to operate—Fruit rolls on to belt, thence into padded bins. NO DROP ANYWHERE. **The Rubber Covered Cylinder and Rubber Belt prevents any possibility of Bruising the Fruit.**

Made in three sizes up to 10 grades. The machine you will eventually buy. Write for further particulars to the manufacturers:

LIGHTNING FRUIT GRADER CO. MERRIGUM, VICTORIA

Why Waste Power?

when by using

SKF

SELF-ALIGNING BALL BEARINGS & SPLIT PULLEYS

you can save in maintenance charges, belt costs, power, and ensure the highest efficiency with true economy.

Let us send you illustrated literature and full particulars. WRITE TO-DAY.

GARDNER, WAERN & CO. PTY. LTD.

Head Office: 384 City Road South Melbourne.
Showroom: 369 Flinders Street, Melbourne.
Distributing Centres also at Sydney, Brisbane, Adelaide, Perth, Hobart and Launceston.

BB&SP1.

ESTABLISHED 1879

Special Announcement to Australian Orchardists and Shippers!!

THOS. PATERSON & CO.

FRUIT & PRODUCE BROKERS & AUCTIONEERS
Vogel Street, DUNEDIN, New Zealand

HAVE THE OLDEST ESTABLISHED AND MOST UP-TO-DATE MARKET

And Solicit Consignments of

Australian Oranges, Lemons, Passions, Grapes, Bananas, etc.,

All Consignments sold under the personal supervision of Principals by our expert salesmen. We have our regular circle of buyers and can SECURE HIGHEST PRICES: *Prompt returns a feature in our business.*

A TRIAL SOLICITED

Address all correspondence TO P.O. BOX 132
DUNEDIN, cable "Patricroft," Dunedin
Bentley's Codes Private Fruit Code address

The Fruit Trade

Every Firm should be Officially Represented

if only by a line or two—Our Readers are Your Clients. It is an able and wise introduction, and when you go through the fruit districts our Readers will have already known you through us.

It pays best to send Consignments Regularly — Not Occasionally — to the best markets, by doing so you strike the rising and falling markets and make a fair average for the season.

A ten times wider and better distribution will ensure a ten times greater production, at more payable returns. It is large and valuable exports from settled industries that make a nation prosperous.—ED. "F.W."

This Journal is the recognised representative of the FRUIT TRADE in the Southern Hemisphere.

REPRESENTATIVE FIRMS, FRUIT MERCHANTS, AGENTS, EXPORTERS, Advertising in this Journal.

NEW SOUTH WALES.

Sydney.
Chilton, F., City Fruit Markets.
Hopkins & Lipscombe, Fruit Exchange.
Piggott, C. G., Fruit Exchange.
Rogers, F. H. G., Fruit Exchange.
Rule & Beavis, Fruit Exchange.

VICTORIA.

Melbourne.
Coastal Farmers' Co-op. Society, Western Market.
Davis, J., Western Market.
Dennys, Lascelles Ltd., 509 Collins Street.
Lister, G., Western Market.
Mills & Co., J. B., 9 Queen Street (representing Nothard, Lowe & Wills Ltd., London).
Millis, A., & Sons, Western Markets.
McClure, Valantine & Co. Pty. Ltd., 49 William St.
Mumford, J. G., 449 Flinders Lane.
Pang & Co. Ltd., H. L., Little Bourke St.
Silbert, Sharp & Davies, Western Markets.
Stott & Son, T., Western Markets.
Tong, W. S., Western Markets.
Vear, F. W., 49 William Street.
Victorian Orchardists' Co-op. Assn. Ltd., 456 Flinders Lane.
Wade & Co., H. M., 489 Flinders Lane.
Woolf, G., Western Market.

QUEENSLAND.

Brisbane.
Barr, A. S., Fruit Exchange.
Collard & Mackay, Fruit Exchange.
Cooksley & Co., Fruit Exchange.
Comino Bros., Fruit Exchange.
Finlayson & Son, Fruit Exchange.
Geeves, H. V., Fruit Exchange.
International Fruit & Produce Co., Fruit Exchange.
Robsons Ltd., Fruit Exchange.

WESTERN AUSTRALIA.

Perth.
Lantzke, F. W., Stirling Street.
Wills & Co. Ltd, G., Exporters

SOUTH AUSTRALIA.

Adelaide.
J. Aarons, Fruit Exchange, Newmarket.
H. C. Austin, Fruit Exchange.
Wills & Co. Ltd., G., Exporters.

TASMANIA.

Hobart.
Jones & Co. Ltd., H., Fruit Exporters.
Peacock & Co., W. D., Fruit Exporters, and at London.

NEW ZEALAND.

Auckland.
Radley & Co. Ltd., Fruit Auctioneers.
Turner & Growers Ltd., City Markets.

Christchurch.
Ivory's Ltd.

Dunedin.
Co-operative Fruitgrowers' of Otago Ltd.
Paterson, Thos., & Co., Vogel Street.
Central Produce Mart, Moray Place.

ENGLAND.

London.
Bradley, F. C. & Sons Ltd., 35 Bow Street, Covent Garden.
Da Costa, Gerald, Covent Garden.
Freeman & Co., 98 Great Tower Street.
Fruit & Produce Exchange of Great Britain.
Jacobs, E. & Sons, Covent Garden.
Knights, Chas., Ltd., Covent Garden.
Landauer & Co., 39 Eastcheap.
Margetson & Co. Ltd., Covent Garden.
Moore & Co. Ltd., F. W., 8 Arthur Street, London Bridge.
Monro, Geo., Ltd., Covent Garden.
Nothard, Lowe & Wills Ltd., Tooley Street.
T. J. Poupart, Covent Garden.
Ridley, Moulding & Co., Covent Garden.
Swann & Co., 3 Salter's Hall Court.
Walton, T., Covent Garden.

Hull.
Jefferson & Gosling.
White & Son Ltd.

Liverpool.
J. Adam, Son & Co. Australian Agents: C. Piesse & Co.

Holland.
Algemeene Vruchten Import Maatschappy, Amsterdam and Rotterdam.

British and Australasian Market Reports

GREAT BRITAIN.

London (11/11/22).

Apples, English, 6/- to 8/- per bushel, Cox's, 4/- to 10/- half bushel; American, 26/- to 32/- per barrel. Bananas, Hoya, 22/6 to 26/6; medium, 17/6 to 20/-; Fyffe, 15/6 to 22/6; medium, 9/- to 11/6. Dates, 6/- to 8/6 per doz. cartons. Grapes, English Alicante, 8d. to 1/6 per lb. Almeria, 20/- to 25/- per barrel. Lemons, Naples 300's 32/6 to 40/- per case. Oranges, Valencias, 33/- to 35/- per box; Murcia, 25/- to 35/-. Pears, English, 8/- to 14/- half bushel; Californian Beurre Anjou, 18/- to 22/- half case. Pines, 1/3 to 4/6 each.

London (6/11/22).

Messrs. T. J. Poupart Ltd., report—English Apples, 6/- to 8/- bushel; C. O. P.'s 8/- to 12/- half sieve; other varieties, 3/- to 6/- half sieve; Comic and Beurre Bosc Pears, 8/- to 10/- half sieve; South African Oranges due on 15th, anticipated prices: Seedlings (all counts) 28/- to 30/- case; Valencia Lates, 30/- case. Colonial and American Apples have slumped in value, and as increasing supplies are advised there is not much possibility of an early recovery.

Liverpool (8/11/22).

Messrs J. C. Houghton and Co. report that up to November 8th, 212,560 boxes and barrels of American and Canadian apples arrived on the market as compared with 152,691 for the corresponding period last year. The fruit is in good condition, but prices are low. Baldwin and Ben Davis realizing 10/6 to 24/- per barrel, Washington Idaho and B. C. Jonathans 8/- to 15/- per box. Pears have dropped considerably, Keiffers 15/- to 22/- barrel, Anjou 41/- barrel, Keiffers per box 5/6 to 9/-, Winter Nelis 22/- to 26/- box. Palermo and Messina Lemons 14/9 to 22/6 case, 8/- to 13/3 box.

DRIED FRUITS.

London (16/11/22).

The following is an extract from the Trade Commissioner's (Mr. R. M. K. Lewis) Report, dated in London, 16th November, 1922.

Raisins.—About 380 tons of Valencias were offered on Tuesday, the demand being slow at a decline in common fruit of about 5/- per cwt. Other kinds were in fairly good demand. Common quarter boxes sold 60/- to 65/-, with good 68/- to 71/-, fine 74/- to 78/-, with some choice from 85/- to 106/-. Seedless neglected except a few fine sold from 75/- to 80/-. Muscatels were offered at auction and common kinds were easier, the finer qualities being mostly withdrawn. Ordinary to fair boxes and trays sold at 80/- to 85/-, medium to good 90/- to 95/-, fine to choice 100/- to 120/-. Cape Raisins are again cheaper with a fair quantity selling from 35/- to 40/-, good 45/- to 50/-. Australians are neglected except a few which went without reserve at late values. Good fruit is offering from 64/- to 70/- with little demand.

Sultanas.—The stock of Smyrna fruit is very small with a fair business doing from 140/- to 145/-, with fine quality offering from 150/- to 155/-. Further arrivals of Cretans are to hand, for Common dark 130/- is asked with fine up to 138/-. A further quantity of Australian is to hand with sales at 135/-, Red Afghans are slow of sale from 80/- to 90/-.

NEW SOUTH WALES.

Sydney (27/12/22).

Mr. F. Chilton, City Fruit Markets, reports prices as follows:—

Queensland Fruits.—Bananas 10/- to 17/- per case, Pines 15/- to 24/-, Passions 6/- to 12/- per half case, Mangoes (choice varieties) 6/- to 10/- per half case. **New South Wales Fruits.**—Bananas (Tweed R.) 12/- to 21/- per case, Oranges 7/- to 12/- per bushel case, Lemons 5/- to 14/-, Passions 8/- to 20/- per half case, Apricots 3/- to 7/-, Peaches 2/- to 10/-, Plums 1/6 to 10/- Cherries 5/- to 12/- per ¼ case, Apples (cooking) 5/- to 10/- per bushel case, Apples (eating) 4/- to 12/-. **Victorian Fruits.**—Apricots 3/- to 10/- per bushel case, Apples (Rokewood) 6/- to 10/-, Apples (Yates) 9/- to 18/-, Cherries 8/- to 14/- per half case. Prior to the holiday interruption the demand for fruit, especially good quality lines, was very brisk, and some high prices were realised. A considerable drop in prices is anticipated and heavier consignments are expected to come on the market.

VICTORIA.
Melbourne (30/12/22).
Western Market.

The changeable weather and holidays during the month have effected the sales of fruit in the Western Market. During the latter part of December Apricot prices dropped considerably, over-ripe and inferior fruit sold at 2/- to 3/- case to factories. Good quality Moorparks are selling well at from 5/ to 10/- case. Inferior Peaches, mostly the latter part of the Briggs Red May crop, have been down to 3/- and 5/-. The weather effected some consignments and they had to be sold at whatever price was offering. Hales' Early prime quality brought up to 14/-. Pineapples were up to 30/- the case, but are now down to 20/-. Exceedingly high prices have been paid for good Bananas for the Christmas trade, and also due to the fact of a short supply. Towards the latter part of the month they were bringing 26/- case, or 25 per cent. higher than earlier in the month. Inferior fruit is selling at 15/-. Larger quantities of Bananas are expected with the next few weeks, and there will be a consequent drop in price.

There are fair quantities of Late Valencia Oranges about, but they are not selling very freely. Prices vary from 8/-, 10/-, 13/- to 14/-. The latter figure is said to be about their proper value. Local Lemons are slow of sale and are not keeping well, prices 6/- to 8/6 bushel. Buyers prefer to purchase Italian Lemons, which are now on the market, owing to their better keeping qualities. Up to 35/- has been paid for double cases of Italian Lemons equal to about 1½ bushels. Buyers say that it pays them to give high prices as they can hold them for days, whereas local Lemons are wasty after the first day. Prime samples of St. Margaret Cherries are realizing up to 12/- and 14/- half case. Inferior 4/- to 6/-.

SOUTH AUSTRALIA.
Adelaide (28/12/22).

Fruit.—Apples (eating), 10/- to 12/- case; Apples (cooking), 8/- to 9/-; Apricots, 5/-; Cherries (dark), 10/- to 14/-; Cherries (light), 6/- to 8/-; Currants (red), 6/- to 7/- per dozen lb.; Figs, 6/- to 8/s. per case; Lemons, 5/- to 6/-; Oranges, 10/- to 11/-; Oranges (navel), 14/- to 16/-; Peaches, 8/- to 10/-; Pears (eating), 6/- to 7/-; Plums (dark), 5/- to 6/-; Plums (Japanese), 6/- to 8/-; strawberries, 12/- per doz. lbs.; raspberries, 7/- per doz. lbs.

WESTERN AUSTRALIA.
Perth (21/12/22).

Apples, Yates, best, 17/- to 20/- per case; small, to 16/-; Rokewoods, to 12/-; Granny Smiths, 15/- to 20/-; Stone Pippins, to 15/3; new season's, flat cases, 5/- to 12/6. Pears, to 7/6; Valencias, best, 10/- to 14/6; others to 8/-. Lemons, best, 7/- to 10/3; medium 3/- to 5/-. Nectarines, to 20/9. Peaches best, to 17/6; medium, to 12/-. Apricots, special, 20/-; prime, to 18/3; medium, to 15/-. Plums, dark, to 18/9; Shiro, best, to 10/3. Cherries, trays, to 22/9. Strawberries, 14/-.

QUEENSLAND.
Brisbane (23/12/22).

Apples, Tasmanian S. T. P., 16/- to 17/- per bushel case; others, 9/- to 11/-; F. C. green, 14/- to 15/-. Victorian, Yates, 19/6 to 20/-. Sydney, 16/- to 19/-; Stanthorpe, cooking, 4/6 to 8/-; eating, 4/- to 8/-. Oranges, 10/- to 14/-; repacked, 16/-. Lemons, Italian, 23/- to 25/-; Sydney, 7/- to 10/-; repacked, to 14/-; South Aust., 16/- to 18/-; local, 12/- to 15/-. Peaches, Stanthorpe, ripe, 1/6 to 2/6; medium, 3/- to 4/-; choice, to 8/-. Plums, local, 3/- to 4/-; Stanthorpe, 5/- to 8/-. Passions, 3/- to 5/-. Apricots, N.S.W., 10/- to 12/-; others 6/- to 9/-; Papaws, 2/- to 3/- per case; ripe, 4/ to 5/-. Cherries 6/ to 12/- per tray; choice, 14/- to 16/-. Pines, medium, 6/- to 9/-; large, 11/- to 13/- per dozen. Ripleys, 14/- to 16/- per case; rough leaf, 14/6. Bananas Cavendish, 6/- to 10/- per case; Sugar, 4d. to 6d. per doz.

NEW ZEALAND.
Dunedin (14/12/22).

Reilly's Central Produce Mart. Ltd., Dunedin, report:—The "Canadian Conqueror" arrived from Adelaide with about 2,000 cases of Oranges in perfect condition, and these we sold at 27/6, 28/-, 28/6 per case. She also carried 240 cases of Lemons, which realised 28/6, 29/-, 30/-, 31/- and 32/6 per case; and 150 crates of Cherries, though these unfortunately arrived in an over-ripe condition and were sold at from 16/- to 28/- per crate of 48 lbs.

Passions and Valencia Oranges are urgently wanted.

Bananas have been short of requirements. We cleared our consignments of 300 cases of Raratonga Bananas on a basis of 34/6 per case.

WANTED

ORANGES
BANANAS
LEMONS
GRAPES
PINEAPPLES
PASSIONFRUIT

WE CAN PLACE CONSIGNMENTS OF ABOVE FRUITS AT HIGHEST MARKET RATES

Ivory's Ltd
ESTD 1855

CHRISTCHURCH, N.Z.

Established 1855. Capital £30,000

Bankers: Bank of Australasia

Growers and Shippers of Australian Fruits

GRAPES, CHERRIES, PEARS, EARLY PLUMS, APRICOTS, CITRUS FRUITS OF ALL DESCRIPTIONS, PINES, PASSIONS, ETC., ETC.

Will find it to their advantage to ship their fruits direct to

REILLY'S CENTRAL PRODUCE MART LTD., Moray Place, Dunedin, N.Z.

Using the direct boat twice a month from Sydney, or every ten days from Melbourne.

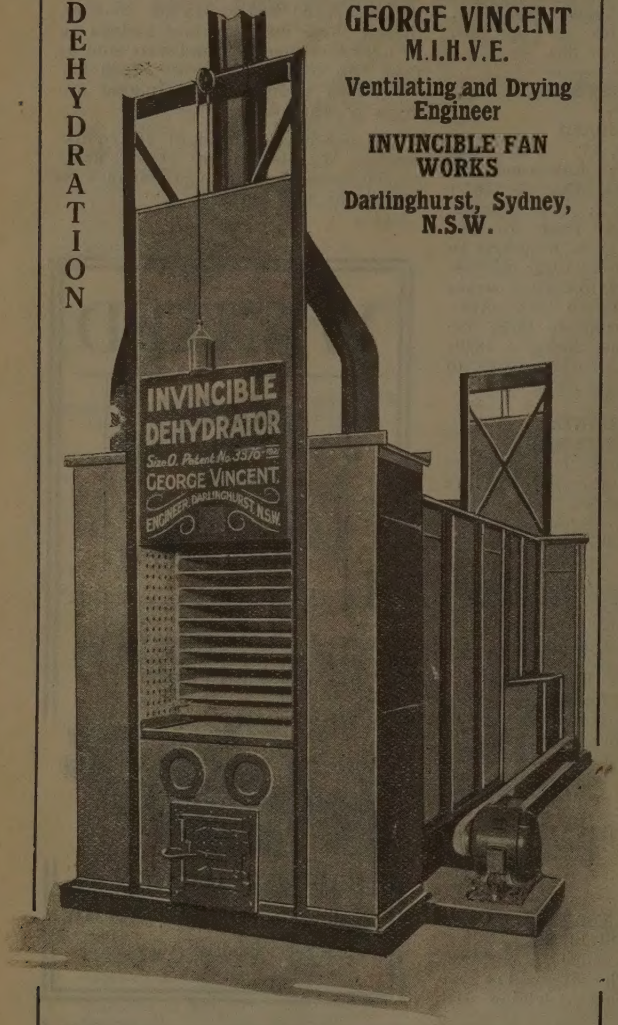
REMEMBER WHO FOUGHT to have the duty on CITRUS FRUITS removed, and fought strenuously for better SHIPPING SERVICE between our respective countries.

We have the Most Central and Largest Saleroom in the South Island
A Staff trained to the Work. Our Advice is at your Service

Write or Cable - - "REILLY DUNEDIN" - - and Satisfaction is assured

FRUITGROWERS!

DEHYDRATION



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M.I.H.V.E.
Ventilating and Drying Engineer
INVINCIBLE FAN WORKS
Darlinghurst, Sydney, N.S.W.

The Invincible Dehydrator

solves ALL problems for the fruitgrower.

The Invincible Dehydrator is designed and built by an experienced drying and engineering firm on scientific lines, and thus gives maximum results.

HAS NO EQUAL IN DESIGN
DURABILITY LOW RUNNING COSTS
DRYING TIME FINISHED PRODUCT

Suitable for successful dehydration of any class of fruit, vegetables, etc.

The huge "Invincible" dehydrating plant erected at Leeton, N.S.W., was designed and erected by this firm, and we claim is the **MOST SUCCESSFUL DRYING PLANT IN THE WORLD.**

ALL THE EVIDENCE INDICATES THAT

Sulphate of Ammonia

Is still the Best and Cheapest Source of the supply of Nitrogen to Orchard and Garden Crops.

Used either alone or in mixtures it has no equal.

Inquiries to—

N.S.W. and Queensland: The Australian Gas-Light Co., Haymarket, Sydney; The Broken Hill Prop. Co. Ltd., 28 O'Connell Street, Sydney; The North Shore Gas Co. Ltd., 193 Alfred Street, North Sydney.

Victoria and Tasmania: The Metropolitan Gas Co., 196 Flinders Street, Melbourne; The Broken Hill Prop. Co. Ltd., 320 Collins Street, Melbourne.

South Australia and Western Australia: South Australian Gas Co., Waymouth Street, Adelaide.

GERRARD

WIRE SEALED BOX STRAPPING

As used by New Zealand, South African and Canadian Fruitgrowers on all Export Apple Cases, has been the means of securing Better Prices

By Preventing Breakage and Pilferage

AND

Delivering their Fruit in Good Condition

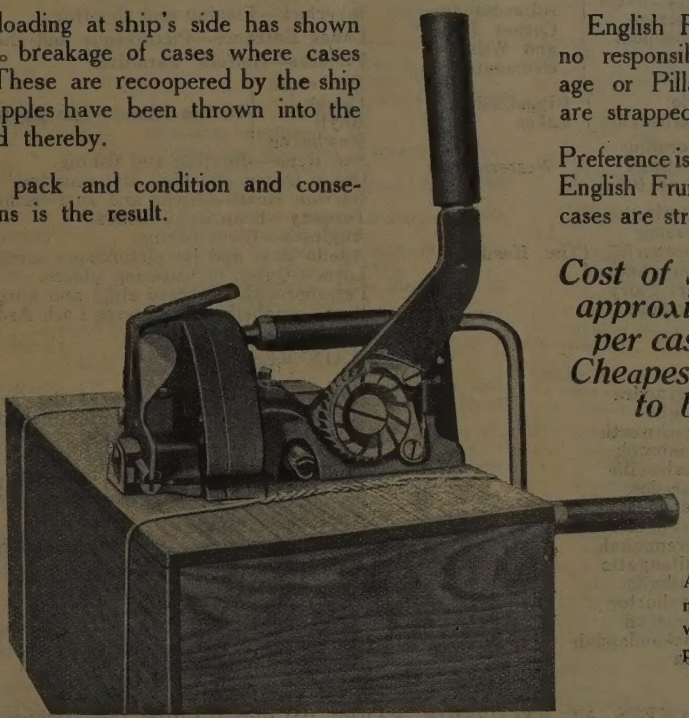
Observation of loading at ship's side has shown approximately 15% breakage of cases where cases are unstrapped. These are recoopered by the ship loaders, but your Apples have been thrown into the cases and damaged thereby.

Deterioration of pack and condition and consequent loss in returns is the result.

English Railroads accept no responsibility for Breakage or Pillage unless cases are strapped.

Preference is thereby given by English Fruit Buyers where cases are strapped.

Cost of Strapping is approximately 1d. per case, and the Cheapest Insurance to be had.



The loss of ONE CASE of Apples would pay for the strapping of over 200 Cases and ensure their delivery in good condition.

Machines loaned to our customers and kept in order free of cost.

Approved by Government departments, railways and shipping companies.

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Factory and Head Office:
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New South Wales Office;
Reiby Chambers, Reiby Lane, Sydney

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Summer Excursions

In Victoria is to be found a great variety of scenery and climate, and the most fastidious can be suited on the bright sunny beaches or cool mountain glades.

If you are fond of sea bathing and fishing, there are numerous delightful spots, or if you prefer the mountains, there is a variety of resorts to choose from.

ENQUIRE ABOUT THE FOLLOWING BEFORE ARRANGING YOUR NEXT HOLIDAY:—

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Reached by Rail direct.

Port Albert, Alberton, Welshpool, Toora, Foster — Adjacent to Corner Inlet and Wilson's Promontory

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Geelong
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Warrnambool
Port Fairy
Portland

Reached by Rail and Motor, Coach or Steamboat.

Marlo, and its noted fishing.
Inverlock—Fishing and shooting.
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Woodend
Yackandandah
Yea

Mt. Buffalo—The Garden of the Gods.
Grampians—Noted for its wonderful wild-flowers.

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Mt. Buffalo	£8 16 0
Healesville	£4 0 0
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Enquire for particulars from the local Station Master, or call, write or 'phone to the GOVERNMENT TOURIST OFFICER, Queen's Walk, opposite Town Hall, Melbourne ('phones 2898 and 2899 Central)), where full details of costs of travel, accommodation houses, maps and tourist literature may be obtained.

GEO. H. SUTTON,
Secretary for Railways.